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THE

Universal Medical Journal.

A MONTHLY MAGAZINE
OF THE PROGRESS OF EVERY BRANCH OF MEDICINE
IN ALL PARTS OF THE WORLD.

(Companion Publication to the "Annual of the Universal Medical Sciences.")

Vol. XI. Old Series. PHILADELPHIA, JANUARY, 1897. Vol. V. New Series.

Selections from Society Proceedings.

AUSTRIA.

VIENNA SOCIETY OF PHYSICIANS.

A Case of Erythromelalgia.—H. WEISS presented a case of this disease at the meeting of the above-named society. In 1893 he had presented a similar case in a young girl. Together with a profuse sweat there was swelling and paroxysmal redness of the terminal portions of the lower extremities associated with severe neuralgic pain. The patient, a chamber-maid, 20 years old, entered Benedikt's clinic to obtain relief for the following symptoms: For nine months she had had, every three weeks, excessive hyperidrosis of the soles of the feet, with intense redness and slight swelling, and the toes turned partially backward,—that is to say, upon the upper part of the foot. In the morning the patient was unable to stand up during two or three hours, on account of the severe burning sensation experienced, the pain felt in the reddened portion being greater in proportion to the pressure exerted. A few whitish, macerated spots were visible upon the soles. The patient did not present any special nervous condition nor any hysterical stigmata. The menses were profuse, and the patient looked anæmic. The perspiration gave an acid reaction.

The disease was first described by Weir Mitchell (1872 and 1878), then by Lannois (1880), Seligmüller, Senator, Henoch, Gerhard, Landgraaf, Koch, Lewin, and Eubenburg, and the special disturbances of sensibility associated with trophic, secretory, and vasomotor troubles were referred to a functional affection of the spinal cord. The development of the sensory, secretory, and vasomotor disturbances had its origin in lesions situated in the posterior horns (Clarke's columns and the solitary cells of the posterior

horns), particularly in the lateral horns of the spinal cord (intermediolateral cellular tract). Kaposi considers erythromelalgia as merely a diminution of the energy of the vascular innervation, which is especially manifested in the peripheral portions of the body during childhood, up to the age of puberty, and in an intermittent manner in adults. In this condition there is always a passive hyperæmia and hyperidrosis, as in chlorotic subjects or where nutrition is impaired. From this point of view the denomination does not furnish any precise indication. Benedikt likewise designates this affection as painful perspiration of the feet, aud it cannot readily be confounded with syringomyelia and Raynaud's disease. Weiss stated that these cases were treated in Benedikt's service by ice-bladders applied over the lumbar region, with excellent results.

FRANCE.

Société de Chirurgie.

Pathogenesis of Appendicitis.—Bazy referred to the fact that, during the discussion which took place last year concerning the treatment of appendicitis, he had tried to claim an identity for typhlitis. He had insisted upon the place to be reserved for lesions of the cæcum in peritoneal accidents of the right iliac fossa, in contradistinction to the cases in which there are genuine lesions of the appendix, citing, in this connection, a case in which, upon opening a large abscess, he had found fæcal concretions which were evidently not attributable to the appendix.

Pathological anatomy demonstrated clearly enough that the cæcum, like the appendix, may perfectly well give rise to symptoms absolutely similar to those now described under the head of appendicitis. The speaker recalled a case in which the patient had presented all the classical symptoms of appendicitis, and in which he found, independent of a lesion of the vermiform appendix, a perforation of the cæcum which amply explained all the symptoms observed. Moreover, many patients recover permanently after the simple opening of an abscess, without the removal of the appendix, and, in the opinion of the author, we are not justified in concluding that the latter, any more than the cæcum, is the original source of the trouble.

Tuffier stated that he had operated upon fifty-four cases of appendicitis, and that most frequently the appendix was permeable. He is convinced, in accordance with Brun and Jalaguier, that inflammation of the appendix is merely a localization of an enteritis, due to the fact that the shape and structure of this organ form conditions especially favorable to its perforation. Like all the mucomembranous canals, the cæcal appendix is infected through the mucous membrane, and afterward the subjacent layers become inflamed, when there results an interstitial parenchymatous appendicitis. This finally causes a more or less pronounced retraction of the walls, coinciding with corresponding changes in the mucous membrane, to which is due the consequent narrowing and sometimes even complete obliteration of

the appendix. Under these conditions we may observe all the symptoms common to obliteration of the excretory canals in general (whether the Fallopian tubes, the ureter, or the ductus choledochus canal), and which manifest themselves whenever there is retention of the products of secretion or of foreign bodies.

Tuffier is of opinion, therefore, that it is important to distinguish between cases of appendicitis *without retention* and those in which there is *complete or incomplete retention.*

The only anatomo-pathological peculiarity proper to appendicitis is the frequency of gangrene, of the cause of which we are yet comparatively unacquainted. According to the cases which the author has observed, it would appear that ulceration is especially frequent when there is a large, stercoral nucleus in the retracted appendix. He wished to call attention to one side of the question which has been neglected,—namely, that intestinal obstruction consecutive to appendicitis does not appear to have come greatly under consideration. He believes that certain symptoms which are attributed to relapsing appendicitis are merely due to intestinal obstruction in connection with peritoneal lesions of appendicular origin.

He has seen two very clear examples of such cases, one of which was especially remarkable through the fact that it had been under observation for three years before the operation was performed. The subject was a child, 11 years old, who was taken with acute appendicitis, without any very violent peritoneal reaction and without apparent symptoms of abscess, in September, 1893. After three months of rest in bed, and a milk diet, during which there were alternations of amelioration and aggravation, a mass the size of a cherry could still be felt, situated exactly at McBurney's point. The following spring the little patient had another attack, which necessitated a two months' stay in bed. In October, 1895, there was a third attack, with fever, vomiting, and the opening of an abscess in the cæcum. From this time on the child appeared to be cured, and in January, 1896, no nodular trace could be felt in the iliac fossa. On April 27th there was a sudden and absolute constipation without emission of gas; there was likewise considerable tympanites and vomiting, first alimentary, then bilious. The speaker attributed these symptoms to intestinal occlusion due to some cæcal obstacle, and administered a purgative. The next day the medicine gave rise to numerous evacuations, and the tympanites diminished. Four days later symptoms of obstruction again appeared, which also yielded to a purgative. On May 7, 1896, the speaker operated upon the child with Terrier. Having made the classical iliac incision, detachment of the peritoneum and a pericæcal exploration revealed nothing, so the peritoneal serosa was cut and the ascending colon and the cæcum easily found. The surface of the cæcum and the termination of the small intestine were united by adhesions. These were destroyed and the operator endeavored to find the appendix in the usual way,—that is to say, by following the anterior band of the cæcum. Exploration of the two faces of the organ, throughout its entire circumference, as well as of the ileo-cæcal valve, was in vain. It was impossible to find a cord or band of any kind recalling the presence of the

appendix, which, presumably, had been absolutely gangrened and eliminated at the time of the opening of the abscess into the cæcum. Since six months the child has not had the slightest intestinal symptom, and his general health is perfect.

The second case was that of an adult who, after repeated attacks of apparent appendicitis in the space of eighteen months, presented himself at Tuffier's clinic with symptoms of slight and temporary obstruction of the intestines. He considered the case one of relapsing appendicitis, but on operating found only a small, fungous cavity in the region of the appendix. Epiploic adhesions existed, however, which included the greatly-distended cæcum and certainly played an important part in producing the attacks. Since the operation, performed on May 11th, the patient has never presented any intestinal symptoms.

Quénu was of the opinion that, as far as the pathogenesis of appendicitis is concerned, it is important to distinguish between that of the first attack and that of the successive ones. He is entirely of the opinion of Brun and Jalaguier with regard to the pathogenesis of the first attack, but considers that, with regard to the secondary ones, a series of actually dissimilar conditions have been confounded under the name of "attacks of appendicitis." He had recently observed a patient who, after having had genuine attacks of appendicitis, with exudations giving rise to a sensation of diffuse infiltration in the right iliac fossa, had attacks afterward lasting only several hours, which could scarcely be considered as attacks of appendicitis. The speaker recalled the fact that he had, three years before, cited a case in which he had operated upon a little patient without finding the slightest traces of appendicitis, as in the two cases just reported by Tuffier. Several weeks ago he had again observed a similar case in which he was unable to find the appendix, which he had thought he had felt upon palpation, but which proved to be merely a little chain of ganglia.

Réclus stated that he had long ago advocated a general theory which he called the "theory of stagnation." It is a well-known fact that when the liquids of the organism stagnate they have a manifest tendency to ferment. Now, the cæcum being a diverticulum of the intestine, and the appendix itself being a diverticulum grafted upon the cæcum, its contents are particularly liable to stagnation, and in this way it presents about the same conditions as those found in a blind internal fistula.

Etiologically considered, appendicitis may be the result of several diseases, and may consequently be divided into three main categories. To the first belong the cases of appendicitis due to a purely local cause, such as the presence of a foreign body in the appendix, which, under the conditions presented by the organ affected, present no tendency toward recovery. In the second group may be classed such cases as are due to a neighboring inflammation, which, instead of subsiding, as in the remaining portions of the intestines, persists in the region of the appendix, owing to the stagnation of the liquids in its cavity. In this connection Réclus related the case of a brother-physician, who, after an attack of entero-colitis, remained without further symptoms during about two years, and

then had an attack of appendicitis which necessitated surgical intervention. The appendix was found gangrenous and entirely separated from the cæcum.

Finally, in a third category of cases, which have been but little studied, may be included certain varieties of appendicitis consecutive upon a condition of general disease, such as typhoid fever.—*La Semaine Médicale*, December 16, 1896.

UNITED STATES.

New York County Medical Association.

Appendicitis Complicating Pregnancy.—Robert Abrahams remarked that, if appendicitis in general merited so much attention as had been given it the past few years, how much more in pregnancy, when two lives instead of one were in jeopardy! Yet up to a short time ago appendicitis in pregnancy was unknown in medical literature, if a brief report of one case were excepted. It was not quite two years since Dr. Mundé's celebrated case was put on record, but now physicians everywhere realized the possibility of its occurrence, and were on the lookout to diagnose it. Up to the present, eleven cases had been placed on record, ten of them suppurative, one catarrhal. The author in this paper added four new ones, and their interest lay in the fact that the mothers, as well as the children, escaped an untimely death. The first case was one of catarrhal appendicitis, seen with another physician in the city, October 1, 1895. The symptoms related to pain at McBurney's point, tumor, increased pulse, and elevation of temperature. These symptoms gradually disappeared, but on October 20th labor set in and a child was born at seven and one-half months. It lived six days. The mother fully recovered and had no pain after delivery. The second case was in a woman seven months pregnant. There were the constitutional symptoms referable to the pulse and temperature, and locally pain, but no tumefaction. The diagnosis made was catarrhal appendicitis. This patient was much constipated. The symptoms subsided after nine days, under cathartics, etc. She was delivered of a healthy child at term. He had treated her in two attacks of recurrent appendicitis since, but she refused operation. In the third case the patient was also habitually constipated; the temperature, pulse, localized pain, vomiting, and later some tumefaction established the diagnosis, and the patient was sent to the hospital, where the diagnosis was concurred in and the operation was about to be performed, but improvement began and she recovered without operation. He had not seen this patient since. The fourth case was one of traumatic appendicitis, which was also seen by Dr. Mundé, who concurred in the diagnosis, but suggested waiting for a time. The patient markedly improved, but still had some pain in the region of the appendix. She was in the ninth month of pregnancy.

The pathology and etiology were, for the most part, the same as in women not pregnant, but the enlargement of the uterus would affect

adhesions; and in all of his cases but one there was a history of obstinate constipation, which he thought might have been a cause, and pointed to the necessity for attention to the bowels during the pregnant state. As to diagnosis, the presence of the enlarged uterus would interfere somewhat with palpation and percussion, but with care local signs could be recognized if present. In all obscure cases anæsthesia should be employed. The chief disease in differential diagnosis was tubal pregnancy, but here the duration of the tumor before rupture was only four months, and it need hardly be thought of after that period. As to hæmatocele, in only one of the cases on record had a tumor of doughy feel at the vault of the vagina proven to be a case of appendicitis. Inflammation of the pelvic organs, ovaritis and salpingitis, was almost always infectious in origin; so that the history would be found of value in diagnosis. Floating kidney and renal calculus might occasionally be mistaken for appendicitis, but patience and care would clear up the error. Typhoid fever offered some difficulties in diagnosis.

As to prognosis, in reported suppurative cases there had been seven deaths out of ten, or a mortality of 70 per cent. In all of the cases of catarrhal appendicitis the patients had recovered. Of subjects operated upon, only one child had lived; the others had perished before or after the operation. Of the total number of reported cases of pregnancy complicating appendicitis—sixteen—eight resulted in recovery and eight in death.

All cases, unless running a very mild course, should be operated upon early. He gave the following rules, partly his own and partly from Willy Meyer: 1. Operate early, within twelve hours, in acute perforative appendicitis. 2. Take the pulse as a guide, 106 to 120 being an indication for operation. Dr Abrahams added to this rule that the pulse should not only be rapid, but should be out of proportion to the temperature. 3. In cases of doubt operation is better than waiting. 4. Sudden lull of the symptoms and within ten or twelve hours sudden recurrence. 5. In cases of old appendicitis lit up during pregnancy, operation ought to be done, even if the attack is a mild one, especially if it occur early in pregnancy. Laparotomy is then easy and removes the possibility of future attacks, when operation may not be easy.

Paul F. Mundé referred to his case which had been mentioned in the paper, and said that when it was published it became the subject of general attention, as if it had never occurred to anybody that a woman who was pregnant could have appendicitis. But, after his attention had been called to the subject by this case, he could see no reason why a woman who was pregnant might not have appendicitis as well as anybody else. Since then he had seen several cases, and had published a very instructive one in the *New York Medical Record*. He would not hesitate to operate, no mattter what the period of pregnancy, and would expect to get as good results as in non-pregnant women.

Robert T. Morris thought appendicitis had, in all probability, occurred frequently in pregnant women, but had been overlooked on account of there being other diseases which simulated it. We could fairly expect it to occur rather more frequently during pregnancy for two reasons: 1. In

pregnant women the appendix hung over the pelvic brim in about 35 per cent. of the cases, and in this position was liable to become bruised by the enlarging uterus. 2. In many cases adhesions existed, and as the uterus enlarged and rose out of the pelvis they were likely to be broken up and excite appendicitis. He thought he had had four or five cases of appendicitis in which pregnancy had played a rôle, but had not published them separately from his other cases. Regarding catarrhal appendicitis, he had not seen it in any case operated upon, yet he did not doubt that catarrh of the intestine might extend to the appendix. When symptoms arose peculiar to appendicitis, infection and exudation had taken place, which put the case out of the category of catarrhal appendicitis. Regarding diagnosis, he supposed there was some difficulty in distinguishing in some cases between typhoid and appendicitis. At least, he had seen a few cases with eminent physicians in which there was a difference of opinion, and, inasmuch as an operation was not performed, the diagnosis was not settled. Resisting tonic spasm of the abdominal wall served to distinguish acute appendicitis from typhoid and salpingitis. It was very seldom that surgeons made a mistake and operated for appendicitis when it did not exist. Dr. Morris said doubt was disappearing among the experienced with regard to ability to palpate the normal appendix.

Tubal Pregnancy Mistaken for Appendicitis.—William T. Lusk related a case which showed that even experienced surgeons, as well as gynæcologists, sometimes made a mistake in diagnosticating appendicitis. The patient was a girl of 19 years, of excellent character, exceptional family, who had an attack of pain in the right side and other symptoms of appendicitis. The symptoms subsided, and she had another attack, in which he was called to examine the pelvic organs. The pain was in the right side. He found the tumor behind the uterus on the right. A surgeon of distinction saw the patient and diagnosticated appendicitis, and recommended operation. All who examined her thought they felt the thickened appendix. On operation Dr. Lusk found in this young girl of exceptional character, who had given no history of passing by a menstrual period, tubal pregnancy. In this instance, the clearness with which his experienced friends had felt the supposed diseased appendix through the abdominal walls was certainly very delightful!

H. J. Garrigues had operated upon one case of appendicitis complicating pregnancy, and while he thought before the operation that the mass might be the diseased appendix, yet there was no reason to suppose that it might not be a neoplasm. The operation decided the diagnosis. The patient did well, but subsequently developed pleurisy, which led to exhaustion.

The Appendix Better Nourished in Females.—Willy Meyer had operated in about two hundred cases of appendicitis, and in only one did the disease complicate pregnancy. He had seen one of Dr. Mundé's cases also. It seemed to be a clinical fact that appendicitis occurred more frequently in males than in females, and in trying to account for it he was disposed to think it might be due to better nutrition of the organ in females, and in

them this was at its height during pregnancy. The case seen by him was a patient of Dr. S. Marx. She had had her first attack of appendicitis about the eighth month of pregnancy. It subsided under expectant treatment. A week later she had pain again and gave birth to a child. A few hours after delivery she had a chill, high temperature, and symptoms of acute appendicitis. She was again treated on the expectant plan, recovered, and Dr. Meyer saw her afterward, with Dr. Marx, in a third attack, and they operated. An unusual condition was found. The appendix was situated in a sheath of new tissue, and when withdrawn was found to measure eight and one-half inches in length. Dr. Meyer had seen so many cases of recurrent appendicitis that he had come to the positive conclusion that all persons should be operated upon who had had one well-defined attack. The conscientious physician should turn them over to the surgeon at a time when ideal surgery could be done, guaranteeing the patient against future attacks of appendicitis and also against hernia in the operation wound.

Another Mistake in Diagnosis.—Howard Lilienthal agreed with what seemed to be the consensus of opinion,—to operate in time in all cases of severe appendicitis. He then mentioned a case of what appeared clearly to be appendicitis complicating pregnancy, although the possibility of typhoid fever was not excluded. He saw the case with Dr. Vineberg, who had already made up his mind to operate, but at the request of the family called Dr. Lilienthal in consultation. They operated and found an absolutely normal appendix, and nothing to account for the patient's symptoms. The patient growing steadily worse, Dr. Vineberg emptied the uterus. The collapse became more profound, and nobody supposed she would live, but there was a sudden turn for the better and she recovered. Regarding the diagnosis between appendicitis and typhoid fever, it should be remembered that the appendix might become perforated in the latter disease. He had seen two such cases.

Catarrhal Appendicitis.—Bernard S. Talmey said, with regard to one not seeing the appendix in a state of catarrhal inflammation, the reason was clear: one did not operate in such cases. To deny the possibility of its occurrence was as reasonable as to deny the existence of catarrhal nephritis or catarrhal inflammation of the lungs, because not found in cases operated upon. Perhaps in not more than 10 per cent. of all cases of appendicitis was it necessary for the physician to call in the surgeon; the other 90 per cent. got well. Now, since but few of the other forms of appendicitis recovered without operation, it was fair to infer that the 90 per cent. were catarrhal.

Constipation and Appendicitis.—Henry Illoway referred to the fact that in most cases of operative appendicitis fæcal concretion had been found, and to the further fact that in many instances, especially in pregnant women, there was a history of constipation. He thought the constipation might be an important factor in lighting up an attack of acute appendicitis by the pressure exerted through the hard masses upon the fæcal concretion, which really was a foreign body within the appendix. In this way the fact

was accounted for that appendicitis was set up from within the organ and not from without, the pressure simply being the means of opening the way to infection from within.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

The Early Symptoms of General Paresis.—GEORGE H. ROHÉ argued that we should look for the early symptoms, although the results of treatment are not encouraging. The diagnosis must be made from a collection of symptoms partly physical and partly psychical. The disease generally begins after the thirty-fifth year, and rarely after the fiftieth. Those in the higher walks of life are attacked by preference, and men more than women. Clergymen are almost exempt and actors are most frequently affected. Syphilis may be one of the causes. The symptoms are various and the treatment is unsatisfactory, and rarely does more than prolong life a few years. The iodides may be given.

EDWARD N. BUSH thought that the early symptoms of paresis occurred in the following order: (1) vasomotor, (2) motor, and (3) psychical. Sometimes depressing ideas usher in the disease.

Diffuse Scleroderma.—WILLIAM OSLER presented a case of diffuse scleroderma. The patient was a white man, about 30 years old, who had suffered from a hardening, thickening, and gradual immobility of the skin. There had been inflammation, erosion, and finally disability. This trouble was most marked in the hands and arms and face, although the skin of the whole body was somewhat hide-bound, and the patient could not close his hands tightly. There were two forms of this disease,—the diffuse form and the local form. The case presented belonged to the diffuse variety. The etiology of the disease is not known and the pathology very obscure. Thyroid extract is sometimes efficacious in this disease. In this case the man had been much improved by it, and there were chances that it would stop the progress of the disease, if not cure it. He could not elevate his shoulders. Scleroderma was a slow, progressive, and a very rare disease. The speaker had been in practice twenty years before he had observed a case, and had seen only six cases altogether.

The Pathology and Bacteriology of Typhoid Fever.—SIMON FLEXNER stated that, while we have every reason to believe that the disease comes from the germ—the bacillus—in the anatomical tract, there is no ground for believing that it gets into the body in any other way than through the intestines. This fact is based not only on the pathological anatomy, but on experiments as well; we cannot produce the disease in animals. Not all parts of the intestines are alike prone to infection to the same extent. Infection takes place where the lymphatic follicles are in aggregation, but not all the lymphatic aggregations are affected to the same extent. There is a general distribution of these lymphatic follicles throughout the whole tract of the intestines, but not all are affected in typhoid fever. The agminated glands are more susceptible to the poison than the solitary ones, and

those nearer the lower part of the small intestine are especially affected. Here the infectious material of typhoid fever is kept a long time, owing to the anatomical character of the parts. The ulceration produced by the bacilli may be very superficial, affecting only the mucous membrane, or the whole thickness of the intestinal coats may be affected, causing perforation.

Many epidemics are from an infected water-supply. The organism of this disease is not particular as to where it lives, and can thrive in water a long time, as well as in milk. It is difficult to discover and separate it from other organisms. The growth is often invisible and causes no change in the color or taste of the milk infected, nor does it cause coagulation. This fact helps in its recognition, because the organisms with which it is confused grow visibly, and recent methods allow the typhoid germ to be discovered in the intestines. By the use of the differentiation method of Elsner, in culture-media of varying acidities, the growth of the typhoid organism in plate culture may easily be separated.

The method of Pfeiffer and Widal, by which the disease is diagnosticated in its early stages, is very ingenious. A bouillon culture of typhoid germs is mixed with blood from a suspected case of typhoid. If the disease really exist, the effect of the serum from the typhoid case causes a loss of motility, a clinging together, and, finally, a disintegration of the organisms. Wyatt Johnston has been able to make a diagnosis of typhoid fever in many cases in a short time by means of a hanging drop of a pure culture of the typhoid organisms to which serum from a typhoid patient has been added. This is a great advance in our diagnostic methods, and should be made use of by all physicians. (See "Clinical Notes," etc., on page 22.)

William Osler, alluding to the prevalence of typhoid fever in the State of Maryland and in Baltimore, said this prevalence was an index of the sanitary intelligence of the community and of the physicians, and that, with the help of the public and of the politicians, it could be stamped out within three years.

John S. Fulton, the Secretary of the State Board of Health, said that, within his one month of service as Secretary of the State Board of Health, he had observed that, while the country-bred bacillus enjoyed great prevalence in the city, the city-bred bacillus seemed to be especially prevalent in the country. As a preliminary step to obtain statistics, he had written to fifty-six physicians throughout Baltimore and Maryland, and had received twenty-three replies, and to explain his opening remark he had found that the city physicians maintained that the cases in their care had originated from infection in the country, while the country physicians blamed the city infection for their cases. He said there were also many cases of typhoid fever concealed under the name of typho-malarial fever, the majority of persons apparently thinking that this combined form of the disease was less serious than either one disease alone. To show how unreliable the statistics were, he would quote from one of the hospital reports (Bellevue Hospital), which showed 16 cases of typhoid fever with a mortality of 16 and 76 cases of typho-malarial fever with no deaths.

Either the diagnosis was very bad or the therapy was murderous. He had been studying the health reports of the State of Michigan since 1886, and had noticed that, at first, many cases of typhoid and typho-malarial fever were reported, but gradually, year by year, the typho-malarial cases had been disappearing, while the malarial and the typhoid cases were slightly increasing. He said that the State Board of Health of Maryland would shortly make a complete investigation to ascertain the sanitary conditions in reference to typhoid in Maryland, and letters would be written to every physician in the State. This would be the happiest and most profitable investment Maryland ever made. If we could place with the board of experts enough money to make a substantial beginning of the reform, its members would realize the possibilities that Dr. Osler had maintained.—*Medical Record*, December 5, 1896.

NEW YORK STATE MEDICAL ASSOCIATION.

The Technics of Intubation in Children; Some Remarks on the Time for Operation and After-treatment.—THOMAS J. HILLIS recommended that the child be prepared for intubation by wrapping it in strong muslin, the arms hanging by the sides and the forearms and hands crossed on the abdomen. This position, and the use of muslin instead of a blanket, secured to the operator more room for the necessary manipulations. Instead of keeping the tube and introducer vertical and in the median line during the whole process of intubation, as was usually done, space could be economized, and in some instances the operation facilitated, by tilting the introducer and tube during the first part of the introduction, so that the tube would lie transversely across the tongue. Of course, as soon as the tube touches the guiding finger, the instrument should be quickly restored to the vertical position in the median line of the body, and inserted into the larynx. Among the various methods that had been proposed for extraction of the tube there was one simple procedure which was applicable to infants under a year old, in whom the cartilaginous rings of the trachea were soft and yielding. This consisted in placing the infant on its back, with a small pillow under the neck, and the head thrown well back, and, by means of the thumb and fingers, "expressing" or forcing the tube upward and backward into the mouth, where it could be seized with the thumb and index finger of the disengaged hand. The speaker highly commended the ingenious contrivance for extraction which was invented by Dr. Dillon Brown. He said that no hard-and-fast rule could be laid down as to the number of days the tube should be allowed to remain in the larynx, but it was always well to err on the side of leaving it in a little longer than was absolutely demanded. There would be slight obstruction present for a short time after the removal of the tube, but, if this was not very great, it need cause the physician no special uneasiness. It was well known that considerably difficulty was often experienced in feeding children while the tube was in the larynx. The difficulty was commonly overcome by placing the child on the nurse's lap, on its back, with the head hanging down over

the edge of the lap. Personally, he preferred to have the little patient lie on the stomach, face down, as this gave greater command over the constrictors.

Temperature as an Element in Prognosis.—SHRADY spoke of the accuracy of the temperature-record, as compared with that of the pulse and respirations. It furnished the physician with more reliable information than the other vital signs did, but the temperature-record, as an index of the problems of waste and supply, should be ever considered in the light of sex, age, temperament, and environment. A high temperature was not necessarily a signal of danger—a temperature of 106° F. on the second or third day of catarrhal pneumonia was not so grave as a temperature of 105° F. in the second or third week of typhoid fever. Da Costa had reported a recovery in a case of cerebral rheumatism after a maximum axillary temperature of 110° F. A temperature of 96.5° F., he said, was the rule in shock, apoplexy, diabetes, tuberculous peritonitis, cholera, and pulmonary embolism. In the prognosis of all these conditions there were no embarrassments, for the *finale* was not long delayed and was sure to be gloomy—the fires were low and smoldering. His conclusions were: 1. That high temperatures were not so uniformly fatal in their tendencies as low temperatures. 2. That a high temperature of short duration was simply indicative of an acute infection or of some insignificant disturbance. 3. That a subnormal temperature, as a rule, presaged death. The greatest disappointments were the rule in cases of collapse.

The Medical Treatment of Inebriety.—T. D. CROTHERS, of Hartford, Connecticut, entered a plea for a more careful and general study of inebriety by physicians, particularly as regarded the etiological factors entering into individual cases. He said that the removal of all spirits at the beginning of the treatment was always followed by the best results, and the reaction could be effectually neutralized by giving $\frac{1}{20}$ grain (0.003 gramme) of nitrate of strychnine every four hours, with the bromides, for the relief of insomnia. This treatment should be supplemented by a calomel purge, the use of hot baths, and vigorous massage, and by the administration, at stated intervals, of such nourishment as hot broths. Where a gradual withdrawal of spirits was insisted upon, the form of spirits should be changed to the wines and beers. It would be found that the withdrawal of liquor in these cases often resulted in the sudden and unexpected development of grave organic disease,—*e.g.*, tuberculosis and dementia. Inebriety was not infrequently the result of an unusual and prolonged strain, or was due to climatic conditions and environment; hence, when such factors are present, every effort should be made to eliminate these factors, otherwise there would be a speedy relapse. Some of the preparations were useful in averting the "drink-storm," but the administration of drugs, like apomorphine, with the idea of causing a disgust for liquor, was always dangerous and but rarely satisfactory. The key-note to the successful treatment of these cases was to be found in sharp elimination. Where the bromides were indicated, they should be given in large doses,—

from 50 to 100 grains (3.25 to 6.50 grammes); these doses should not be continued for more than a few days. No one remedy was capable of meeting a wider range of conditions than the Turkish bath associated with massage.

The Surgical Relief of Obstruction of the Common Duct by Biliary Calculi.—H. O. Marcy, of Boston, described the operation which he had been the first to do for the removal of calculus situated in the common duct. The original operation had been done on October 20, 1889, according to the following method: The walls of the common duct were divided with scissors and their edges everted from over the calculus, the abdominal cavity having been previously shut off from the field of operation by sponges. With a fully-curved needle armed with selected tendon-suture, the divided edges of the thickened mucous membrane of the duct and gall-bladder were united by a continuous suture. Over this the peritoneal edges were coaptated by a layer of continuous suture, and then a third layer of continuous sutures was applied, the sutures being taken parallel to the long axis of the wound, and through the peritoneum. Tension on this suture buried not it alone, but also the uninjured peritoneum. After the removal of the sponges, the peritoneum was closed with a continuous double tendon-suture. The divided muscular structures were united in a similar manner in separate layers, and the skin was coaptated by a layer of buried tendon-sutures. The wound was sealed with collodion. Convalescence was rapid. The calculus, when dried, weighed fifty-nine grains.

A New Microtome.—Sydney Yankauer, of New York County, exhibited a simple and very inexpensive microtome which he had devised, which had been proved capable of doing as good work as the more expensive instruments. With the rude model shown, he said, he had cut sections in celloidin a thousandth of an inch thick, and in paraffin sections only one-five-thousandth of an inch thick.

A Successful Plaster-of-Paris Bandage Cutter.—Yankauer also exhibited a new instrument for cutting plaster of Paris. It consisted of a series of peculiarly-ground knife-blades arranged around the periphery of three wheels, which were all fastened to one axle and were rotated after the manner of a circular saw. This peculiar construction permitted of a very rapid and easy cutting action, and kept the teeth free from clogging.

Physiological Deductions Regarding the Usefulness of So-Called Animal Extracts.—H. A. Haubold took the position that these substances must be so altered by digestion and other changes that there was no reason to suppose that they reached the tissues in a form which would exert any specific action. It had been alleged that when the nucleins were administered hypodermatically they gave rise to a leucocytosis, but, while this was a fact, it only seemed to show that the blood made a special effort to rid itself of this foreign body.

A Point in the Treatment of Endometritis.—William H. Robb advocated a more general use of nitrate of silver in the treatment of endometritis. His plan was to make no intra-uterine applications without rigid antiseptic precautions, and, if the drainage were not sufficient, to attend to this matter

at once. Incidentally, of course, injuries were repaired and displacements reduced. The application of the nitrate of silver should be made carefully and thoroughly, and to do this it was absolutely necessary that all unhealthy secretions should be removed previously from the interior of the uterus, and the latter be left clean and dry. For mild cases and those seen early he preferred to use a 5- or 10-grain (0.33 or 0.66 gramme) solution of nitrate of silver, but the more chronic cases required very much stronger solutions or even a light touching with the solid stick.

L. J. Brooks, of Chenango County, said that such applications were followed immediately by an apparent improvement or cure, but further observation would show that a real cure had not been effected, but that, on the contrary, the treatment had left an atrophic, non-secreting, and irritable endometrium. There was no such objection to the use of the curette.

J. Francis Calef, of Middletown, Connecticut, had found a weak solution of nitrite of silver, 1 to 3000, soothing to an inflamed mucous membrane, but to use these very dilute solutions effectively the water for washing the surface must be free from chlorides.

A Class of Fatal Cases Presumably Due to Intestinal Ptomaines.—E. D. Ferguson, of Rensselaer County, described the histories of eight cases—four medical and four surgical—in which the chief feature had been the sudden onset of symptoms,—vomiting, at first, of watery mucus containing a few dark specks, and later the vomiting of coffee-ground material, and the development of a slight icterus. Death had occurred in about forty-eight hours. The cases had not been in the same locality, and had occurred at different times, extending over a period of a number of years. In the autopsies that had been obtained there had been no evidence of intestinal obstruction, peritonitis, or sepsis, but the liver had been the seat of parenchymatous inflammation, with softening and acute atrophy. Intestinal obstruction could certainly have been excluded in some of the cases, as, for instance, the one in which there had been free movements of the bowels up to the day of death. The only explanation that he could offer was that the condition had been an acute toxæmia resulting from the accumulation of a bacterial ferment or an enzyme in the blood, or else that through some extraordinary influence of the nervous system the digestive and assimilative processes had been so interfered with that a virulent form of poisoning had been produced.

The Palliative Treatment of Cancer of the Cervix Uteri and Bladder.—Nathan G. Bozeman, of New York, advised that the strictured condition of the vagina should be remedied by the wearing, for a few hours daily, of intravaginal dilators, and that where the disease had produced a vesico-vaginal fistula irrigation should be performed. This last was best accomplished by the patient wearing the Bozeman vesical-drainage support, and using it in conjunction with his intermittent siphon apparatus, by which continuous irrigation could be kept up for three hours at a time.

The Bromides as a Cure in Diphtheria.—Robert Aberdein presented a paper on this subject in which he stated that he had been led to adopt the

treatment by an accidental observation regarding the action of the bromides in an epidemic of diphtheria that had occurred in an asylum. His experience with this treatment had comprised thirty-eight cases with only two deaths. He expressed the greatest confidence in its value.

Recent Investigations Concerning Eclampsia.—W. T. Lusk, of New York, opened the discussion of this subject by calling attention to the fact that many pregnant women had albuminuria without eclampsia, and that many others had eclampsia without any evidence of abnormity in the urine. It was now well known, he said, that many poisons resulting from excessive tissue change might give rise to convulsions, and it was well to remember that a diminution in the quantity of urea indicated an excess of the other poisons resulting from tissue metabolism. It was not improbable that eclampsia might result from intestinal decomposition and the formation of certain toxins. A plan of treatment now finding much favor in Europe consisted in keeping pregnant women who exhibited slight albuminuria, with perhaps faint nervous symptoms, on a rigid milk diet and carefully regulating the bowels. Personally, he would not care to interfere with pregnancy where the only symptom of disorder was a slight albuminuria. Where interference was demanded, he preferred to induce labor by the use of Barnes's bags, except in the rare and extremely urgent cases where it seemed justifiable to still further expedite labor by making Dührssen's incisions into the cervix. When it became necessary to resort to these incisions they should be closed again by suture immediately after delivery. Where a patient with puerperal eclampsia had turgid blood-vessels, no known remedy could equal the removal of sixteen ounces of blood from the arm. Veratrum viride was at present attracting attention in Europe, but he had had no personal experience with it in the treatment of puerperal eclampsia.

E. R. Squibb, of King's County, recommended the employment of the official fluid extract of veratrum viride, in doses of 5 minims (0.33 cubic centimetre) every ten or fifteen minutes, until the pulse had been affected by it; after this, the drug should be administered for some time longer, but in diminished doses. Norwood's tincture was of very variable strength. The pulse was sometimes apparently feeble, but even here the veratrum should not be withheld, but given in smaller doses.

The president said that he usually gave not more than 5 minims (0.33 cubic centimetre) of the veratrum, repeating the dose in half an hour. The pulse was certainly sometimes quite deceptive; even when it was apparently feeble it was proper to give veratrum and to bleed.

The Duty of the Public to the Physician.—William M. Bemus, of Chautauqua County, reviewed some legal points of general interest to the physician. He called attention to the fact that, if a physician were sued by some charity patient, even though the case were decided in his favor and the plaintiff ordered to pay the costs, the physician would find that he would have to pay his own bill, being the only responsible party. Malpractice could only be affirmed when the physician deliberately set aside well-

known principles. As a rule, anything warranted by good practice and not objected to by the patient was justified in law. The prescription had been decided to be the property of the patient, and, while the druggist had a right to retain it as a voucher, he had no legal right to renew or duplicate it without the knowledge and consent of the prescriber.

A Plea for the General Use of Measures to Prevent Ophthalmia Neonatorum.—A. A. HUBBELL showed that one or two children out of every thousand born in the United States had ophthalmia neonatorum, and that about 15 per cent. of those who had had this disease and had not been properly treated became blind in both eyes. He described various methods of prophylaxis, and showed by statistics from different institutions what a remarkable reduction in the percentage of children having ophthalmia neonatorum had been effected by the systematic use of the Credé method. This consisted in giving the child a bath immediately after ligating the funis, and then, after wiping the eyelids with absorbent cotton, instilling into each eye a drop of a 10-grain (0.66 gramme) solution of nitrate of silver. As ophthalmia neonatorum developed where there had been not the slightest ground for suspecting that the mother had had gonorrhœa, the only effective method of prophylaxis presupposed the employment of the treatment in every newborn child. (See Dr. Levison's report, on the next page.)

Supplementary Notes upon Tendon-grafting and Muscle-transplantation for Deformities Following Infantile Paralysis.—S. E. MILLIKEN, of New York, presented a paper on this subject which was supplementary to a similar communication presented a year ago. He said that he had operated in this class of cases altogether fourteen times, and in only one instance had there been a failure to get union. He preferred to use kangaroo-tendon on the tendons and muscles in the closure of the sheath, and interrupted catgut for the wounds in the skin. The limb should, of course, be perfectly immobilized by means of plaster of Paris. The best results were obtained in young children.

Auscultatory Percussion.—LOUIS L. SEAMAN, of New York County, exhibited his perfected instrument for practicing auscultatory percussion without the aid of a second person. He also showed a very superior form of stethoscope which, he said, had come into vogue in Europe. It consisted of a small, hard-rubber chamber, closed at the lower, or chest, end with a diaphragm not unlike that used in the telephone, and at the upper end by a rubber cover through which soft-rubber tubes passed up to the ears. He stated that in this form of stethoscope extraneous sounds caused but little inconvenience, and that auscultation was very satisfactory with it, even though it was applied to an irregular surface. When it was desired to localize the sounds more accurately, this could be accomplished, he had found, by screwing a hard-rubber stem into the diaphragm.—*New York Medical Journal*, December 5, 1896.

Selections from Reports of Members of the Annual's Staff of Correspondents.

Norway.

DR. F. LEVISON,

REFERENT FOR DEN DANSK LITTERATUR VEDRØRENDE: ALMINDELIG MEDICINSK PATHOLOGI OG THERAPI, DERI INDBEFATTET, NERVE- OG SINDSSYGDOMME, PÆDIATRIK, OBSTETRIK, GYNÆKOLOGI, HYGIEINE, DEMOGRAPHI, RETSMEDICIN, PATHOLOGISK, ANATOMI, BAKTERIOLOGI.

Alle medicinske Böger, Disputatser, Monographier, Tidsskrifter, etc., der adkomme i Danmark bedes sendt til

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Case of Spondylolisthetic Pelvis.—VEDELER describes a case of spondylolisthetic pelvis observed. The body of the fifth lumbar vertebra had descended upon the upper portion of the sacrum. The antero-posterior diameter (conjugata vera) was, nevertheless, nine centimetres, and the woman was successfully delivered of two living children.—*Norsk Magazin for Läger*, p. 833, 1896.

Treatment of Puerperal Eclampsia.—DREJER is of the opinion that the best treatment for puerperal eclampsia is to induce delivery as speedily as possible. After having considered the various methods employed to this end, he gives the preference to manual dilatation of the cervix, preceded, if necessary, by dilatation by means of Hegar's sounds. When the orifice has reached a diameter of three centimetres, the delivery may be made according to the Braxton-Hicks method. The author cites three cases of puerperal eclampsia successfully treated by this method.—*Norsk Magazin for Läger*, p. 885, 1896.

Mortality in the Various Periods of the Puerperium.—VOGT has studied puerperal mortality in Norway from 1882 to 1891, dividing this period into two equal portions. By comparing them he finds that the mortality in the second period is greater than that of the preceding one, notwithstanding the fact that puerperal antisepsis has made considerable progress during that time. He attributes the increased mortality to the more frequent use of the forceps.—*Norsk Magazin for Läger*, p. 657, 1896.

Treatment of Gonorrhœal Ophthalmia in Infants.—HJORT admits the fact that the treatment of gonorrhœal ophthalmia in the newborn by the application of a 2-per-cent. solution of nitrate of silver is very painful for the infants, and should be practiced with great care. He proposes, instead, oxygenated water, a 1- to 1½-per-cent. solution being instilled into the eyes. This solution does not cause any disagreeable sensation, and the pus is immediately coagulated, forming granular masses, which are easily expelled by movements of the eyelids or by the instillation of a weak solution of

boric acid. When the eye has been cleansed in this way, several drops of a 1 to 1000 solution of nitrate of silver may be introduced. This treatment gives excellent results, and is not painful.—*Norsk Magazin for Läger*, p. 823, 1896.

Papillomatous Ovarian Cysts.—OSCAR SEMB publishes a monograph upon papillomatous ovarian cysts, and divides the latter as follows: 1. The papilloma, properly speaking, which manifests itself as a cystopapilloma or a superficial papilloma. 2. The papillomatous colloid cystoma,—*i.e.*, a colloid cystoma presenting an exceptional epithelial proliferation. 3. The papillocarcinomatous cyst.

In one case the author found an endothelioma in the form of papillary excrescences in an ovarian cyst. He minutely describes twenty cases of papilloma observed by himself, and gives a clinical and histological history of these tumors in general. They must not be confounded with papillary cystocarcinomata, from which they may be distinguished (notwithstanding the microscopical resemblance, the peritoneal implantation, and the ascites common to both affections) by their absolutely benign character, the epithelial proliferation never invading the surrounding tissue to any extent. Papillary cysts grow slowly and do not give rise to cachexia; the implantations upon the peritoneum are also benign in nature and frequently disappear after the removal of the tumor itself. According to the author, papillomata rarely degenerate into carcinomata, but retain their benign character for years. The papillomatous cyst has its origin in the superficial epithelium of the ovary; only in one case was the author able to trace it to the epithelium of the primary follicles.

The prognosis is very good; there is no recurrence through the peduncle after the removal of the papillary cysts. An operation should always be accompanied by extirpation of the other ovary, even though the latter appears healthy, because the second ovary may later on become the seat of growths of the same kind.—*Norsk Magazin for Läger*, Supplement of October issue, 1896.

Litten's Diaphragm Symptom.—STORM-BULL has tried to find Litten's diaphragm symptom in 1300 cases, and found that it was frequently absent, even in healthy individuals; also, that it is often present on one side only. In diseases of the thorax, lungs, and pleura this symptom is not very frequently perceivable, and in the author's opinion no great advantage can be derived from it by the physician. For the physiologist, however, the method is very interesting.—*Norsk Magazin for Läger*, p. 1005, 1896.

Bacteriuria as a Cause of Enuresis.—LYDER NICOLAYSEN mentions a rarely-noticed cause of incontinence of the bladder with diurnal enuresis,—namely, bacteriuria. In eight cases of diurnal enuresis observed by the author he found the existence of bacteriuria. The urine, which was obtained with all the necessary precautions, contained the coli bacillus. In what manner the bacteriuria occasions the enuresis remains undetermined. For the treatment the author resorts to lavage of the bladder with a solution of

nitrate of silver and internal antiseptics, such as salol, but the bacteriuria resists for some time.—*Norsk Magazin for Läger*, p. 1012, 1896.

Variations in the Butyric Globules of Milk.—JOHANNESEN has made researches concerning the variations in the butyric globules of the milk of women and of cows. The diameter of these globules in the milk of women varies from 2.5 to 12.5 millimetres, and may reach 15 to 20, and very rarely 30 millimetres. On the other hand, he also found the globules so small that they could not be measured. At the beginning of suction of the milk the diameter of the globules varied from 2.5 to 12 or 15 millimetres; toward the end of the suckling they are more regular,—from 7 to 8 millimetres. In cows' milk the globules are generally smaller and more regular in size.

The authors found an average of 3.21 per cent. of fatty matter in woman's milk, and 3.5 in that of the cow. In cows pastured in the mountains the amount of fat was increased to 3.6 and 3.7 and sometimes even 4 per cent. To determine the percentage of fatty substances in milk the author recommends Gerber's acidbutyrometer and butyrometer.—*Norsk Magazin for Läger*, p. 906, 1896.

Poland.

DR. J. DRZEWIECKI,

Redaktor Korespondent z działu polskiej literatury tyczącej się: Medycyny ogólnej i lecznictwa; pediatryi; akuszerzyi; ginekologii; laryngologii; otologii; hygieny; demografii; medycyny sądowej; histologii; patologii; bakteryjologii; anatomii; fizjologii.

Wszystkie pisma lekarskie, dzieła, rosprawy, monografije, itd., w języku polskim wydane, a tyczące się przedmiotów powyższych, winny być nadsyłane pod adresem

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The Present Status of Surgery of the Kidneys.—PROFESSOR OBALINSKI delivered a lecture on this subject at the Eighth Congress of Polish Surgeons in Cracow, and basing himself upon a close examination of the literature and upon his own cases, formulated the following conclusions:—

1. The most frequent symptoms—*i.e.*, pain, enlargement and displacement of the kidney—show us which kidney is affected. When there is hæmaturia, it is only in exceptional cases that this cannot be decided, and here only an examination of the bladder with the cystoscope will prove from which ureter the blood or pus flows.

2. It is only in distinct and developed cases of affections of the kidneys that we can fully make out a diagnosis and the consequent therapeutic indications by external examination only; most frequently, especially in the beginning, we must have recourse to exposure of the kidney or even incision of the same. If there is difficulty in deciding whether the kidney or some other organ (gall-bladder, for instance) is affected, it is necessary in grave and urgent cases to decide the question by laparotomy. Where, however, we are sure that the kidney is affected, and the only question is the severity of the affection, we should expose the kidney by an extraperitoneal incision.

3. To-day the conservative tendency prevails, and our endeavors are to preserve as much as possible such an important organ as the kidney. We

only sacrifice it, therefore, when we have concluded that it contains within itself a focus that may be injurious to the remainder of the organism, or when the parenchyma has become so degenerated that its function is rendered impossible. Thus, there are only two absolute indications for nephrectomy,—namely, when in the greatly enlarged kidney a malignant growth or primary tuberculosis are positively diagnosed. The other indications will be only relative,—that is to say, will have their significance only when, after exposing the kidney or even after its incision, we have convinced ourselves of its useless function.

4. The experience so far gained by the practice of nephrectomy teaches us that, when a considerably enlarged and hard kidney can be felt before the operation, it is already or almost deprived of its natural function, and is also usually a proof of the capacity of the other kidney to perform the functions of both.

5. In view of this and the frequently demonstrated fact that even a seriously affected kidney, remaining after the extirpation of the other, may fulfill the functions of both, the requirement of an examination of the urine of each kidney separately should be considered as unnecessary and as impeding the development of surgery of the kidney. This is especially the case since Sawlik's method of catheterization of the ureters (the only one known and employed) is troublesome and unreliable, and may even be dangerous in some cases,—namely, if there are morbid microbes in the bladder, which are transferred by the catheter into the ureters or even the renal calices.

6. When, in the kidney to be operated upon, we suspect that there is still a certain functional capacity, we should never sacrifice it, but act conservatively and resort to nephrotomy, which best facilitates the examination of the condition of the other kidney.—*Gazeta Lekarska*, Nos. 40 and 41, 1896.

Treatment of Gonorrhœa by Janet's Method.—BORZENCKI applied this method in 41 cases of gonorrhœa, strictly following the indications of its author. Hypermanganate of potassium was used in 1 to 4000 and 1 to 1000 solutions. In all the cases microscopical examination revealed the presence of gonococci before the treatment. Nine cases were treated in the very first period of the disease. In 6 cases the posterior part of the urethra was affected; in 26 cases the disease lasted from one month to one year. In 28 cases complete recovery followed, and in the remaining 13 the result was negative. Only in 1 case was epididymitis developed during the treatment. In the cured cases the number of irrigations did not exceed twelve in any one case. The author considers such cases as cured in which, after a lapse of from one-half to one month after the treatment, there was no discharge from the urethra, and in which no gonococci could be found.—*Przeglad Lekarski*, August 22, 1896.

Russia.

DR. J. DRZEWIECKI,

РЕДАКТОР-КОРРЕСПОНДЕНТ

изъ области русской литературы, касающейся: Общей медицины и терапіи, педіатріи, акушерства, гинекологіи, ларингологіи, отологіи, гигіены, демографіи, судебной медицины, гистологіи, бактеріологіи, анатоміи и физіологіи.

Всѣ періодическія, медицинскія изданія, сочиненія, стат'и, монографіи и т. д., изданныя на русскомъ языкѣ и касающіяся вышеупомянутыхъ предметовъ должны быт' адресованы на имя

ДРА ДРЖЕВЕЦКАГО.

87 Краковское Предмѣст'е,

Варшава.

The Value of Bianchi's Phonendoscope.—B. M. SHAPOSHNIKOFF, after trying Bianchi's phonendoscope on over one hundred persons, some of whom were healthy, while others presented morbid changes of the lungs, reached the following conclusions: 1. It is very doubtful whether the phonendoscope could give, as Bianchi asserts, a very exact determination of the internal organs. 2. Examination with the phonendoscope has no advantage over other methods. On the contrary, the increase of sounds and noise produced by the phonendoscope may, in many cases, impede their proper appreciation. 3. Besides, the construction of the phonendoscope itself causes the formation of foreign sounds and noises in it. 4. The strong and distinct sounds through the phonendoscope during prolonged examinations fatigue the physician very much; moreover, according to the author, such sounds have even an injurious influence on the hearing.—*South-Russian Medical Gazette*, September 19, 1896.

The Influence of Subcutaneous Injections of Spermin and Musk on the Composition of the Blood.—Basing himself upon personal experiments made upon men, some of whom were healthy, while others were suffering from pneumonia or typhus abdominalis, EPIFANOFF has reached the following conclusions: 1. Injections of spermin and musk do not change either the contents of hæmoglobin or of the red corpuscles, neither in healthy persons nor in those having croupous pneumonia or typhus. 2. After such injections the quantity of white corpuscles in healthy persons is first diminished and then increased, usually in from three to five hours after the injection. 3. In grave cases of abdominal typhus with lethal tendency the injections of musk diminish the already small quantity of the white corpuscles, and in the later periods of the disease occasion changes resembling those observed in the healthy; finally, at the acme of the disease, they produce no changes. 4. In patients with croupous pneumonia the injections made on the eve of the crisis almost always occasion diminution of the general quantity of the white corpuscles, and during the remainder of the disease either produce no changes or changes similar to the changes produced in healthy persons, but only in a higher degree.—*Inaugural Dissertation*, St. Petersburg, 1896.

Clinical Notes and Therapeutic Suggestions.

The Serum Test in Typhoid Fever.—This question has been the subject of considerable discussion these last few months, particularly since the communication made in this connection at the congress at Nancy by Widal, of Paris. The value of the procedure is no longer questionable. Widal and Sicard, Achard, and Bensaude have published interesting articles on the coagulative properties of the serum in typhoid patients. The two cases reported below prove in an undeniable manner the clinical advantage presented by this method for the recognition of typhoid fever in cases in which the diagnosis cannot be based upon precise symptoms. A pathognomonic sign, which was formerly not within our knowledge, is now at the disposal of every one, while typhoid fever has definitely established its identity as a specific disease, which was denied it by certain distinguished physicians only a few years ago. De Grandmaison reports the two following cases, in which the disease was only recognized by serodiagnosis. The bacteriological experiments were all made at the Broussais Hospital by the author, assisted by Dr. Fontoynon, his interne.

Case I.—On August 15th last de Grandmaison was called upon to attend a little girl, 9 years old, who had been suffering since July 21st. The temperature, which was taken regularly, did not present the exactness of the thermic curve in typhoid fever, and, moreover, there was no diarrhœa, no lenticular spots, nor any hypertrophy of the spleen. The general condition of the child was bad, the speech slow, the fæces pale, the tongue parched, and the breath fetid. Auscultation revealed a diminution of the respiratory murmur at the right apex, which also presented a slight dullness upon percussion; these pulmonary symptoms, added to a rather marked degree of intellectual obnubilation, suggested the possibility of tuberculosis. Not being able to make a positive diagnosis, he decided to resort to the serum test. On August 26th several drops of blood were obtained from the forefinger of the child, which were mixed, on the following day, with 1 drop of serum and 10 drops of the pure culture of the typhoid bacillus, forty-eight hours old. After half an hour, numerous agglomerations of the bacilli could be distinguished with the microscope which, at the end of three hours, were absolutely characteristic as regards dimension and immobility. The diagnosis was thus established, and was confirmed later on by the course of the temperature and the marked hypertrophy of the spleen. From that time on the patient took eight baths at 18° C. (64.4° F.) every twenty-four hours until the 16th of September, when the fever left her and convalescence began. The child is now perfectly well and has regained her vivacity, cheerfulness, and good appetite.

Case II.—On August 14, 1896, a mason, 43 years old, and an averred alcoholic, presented himself at the Broussais Hospital for some gastric trouble. The man retained his appetite, but the urine was somewhat albuminous and there was diarrhœa. A purgative and milk diet were prescribed. In the evening, however, the temperature rose to 38° C. (100° F.), the gastric disturbances continued, and the general condition grew worse.

Although the existence of typhoid fever did not seem likely, the serum test was resorted to, and, contrary to all expectations, furnished precise indications. The bacilli of Eberth accumulated rapidly in large groups.

Two days after this examination, which was made on August 26th, the fever became violent, the rectal temperature rose to over 40° C. (104° F.), and the general condition became alarming. On August 31st the patient succumbed, notwithstanding the balneotherapeutic treatment, after having had two very abundant intestinal hæmorrhages, during which the peripheral temperature was not lowered in the least. The diagnosis was fully confirmed at the autopsy, when characteristic lesions of enteric fever were revealed.—*La Médecine Moderne*, December 12, 1896.

The Serum Test of Widal and the Possibility of its Application Without Microscopical Examination.—Charles Lyman Greene, of St. Paul, Minn., expresses the opinion that this test is absolutely pathognomonic, whether performed with fresh or with dried blood. In support of this view he cites a series of cases, and calls attention to the fact, not hitherto mentioned, that even macroscopical methods may suffice for its application.

Pfeiffer, in May, 1894, found that cholera vibrios, mixed with the serum of an immune animal and injected into the peritoneal cavity of a guinea-pig, lost their motility and underwent a peculiar change in physical characteristics. In November, 1894, he found that typhoid bacilli underwent similar changes, and he also found that the blood-serum of a typhoid-fever patient would produce the same results. Gruber, in 1895, found that if the serum of an immune animal were added to a bouillon culture the bacilli became agglutinated and lost their mobility. No use was made of these discoveries, however, save as a means of identifying the bacillus, and to Widal, of Paris, belongs the credit of transposing these findings and adapting them to the needs of clinical diagnosis by studying the effect of the blood-serum of a typhoid patient upon the pure culture of the bacillus typhosus.

He first reported his clinical results on June 26, 1896, and later suggested the use of dried blood instead of the fresh serum, when the latter could not easily be procured. The present status of the test justifies the following statements:—

(*a*) That the blood or blood-serum, and very frequently the urine, of a typhoid patient, by virtue of a specific antitoxin, causes, when added to an emulsion of the pure culture of Eberth's bacillus in hanging-drop or ordinary cover-glass preparations, a characteristic loss of motility, with agglutination and grouping, of the bacilli.

(*b*) That this reaction may, and generally does, occur as early as the fourth or fifth day and is variable on the eighth or ninth, lasting generally throughout convalescence, and very often for many months after complete recovery. (Widal thinks for years in some cases.)

(*c*) That the antitoxin of a typhoid patient acts thus only upon the bacillus of typhoid. (This has been denied as to the colon bacillus, but the denial is immaterial from a clinical stand-point.)

(*d*) That the blood-serum or urine of patients suffering from diseases other than typhoid does not so affect the typhoid bacilli.

(*e*) That dried blood retains the antitoxin unchanged and may be used when the fresh blood or serum is unobtainable. The antitoxin remains unchanged in dried specimens for weeks, and probably for several months.

(*f*) That the test is, therefore, pathognomonic of typhoid and easily applicable to the use of public laboratories.

The fact that no adverse reports have appeared attests the simplicity and reliability of the test. Its application requires only the possession of a moderately-high-power lens,—$\frac{1}{4}$ to $\frac{1}{6}$ objective (an immersion objective is not necessary); a tube containing the pure culture, such as may be easily obtained from a public laboratory; and such a rudimentary knowledge of bacteriological technique as will serve to prevent the contamination of the pure culture used and permit proper re-inoculation of fresh culture-tubes from time to time (about every two weeks). For such as do not possess these facilities the public laboratories should offer a means of ready assistance. The practitioner would then need only to sterilize the skin of his patient's finger or ear, draw a drop or two of blood, transfer it to a cover-glass, visiting-card, or any other similar object, and send it closely sealed to the laboratory.—*Medical Record*, December 5, 1896.

Practical Treatment of Typhoid Fever.—C. E. Skinner, alluding to the general belief that a too rapid return to solid from a liquid diet is capable of inducing a relapse of the disease, expresses a contrary opinion. This fever is infectious, and if, in any given case, it started to run another cycle, there must certainly have occurred another infection with fresh germs. It is much more logically explained by the probability that the fæces had not been thoroughly disinfected early enough to kill all the micro-organisms, and that some article—clothing, bedding, or the carpet, for instance—had suffered contamination. As their virulence is not destroyed by drying, it would be quite possible for some of them to effect a re-entrance into the patient's intestinal tract and set up mischief anew. Too heavy (*i.e.*, indigestible) a diet would be likely to produce acute dyspepsia, with its accompanying systemic disturbances, and this would be rendered more intense and easier of induction by the debility present; but the author does not believe that it ever directly caused a relapse into true typhoid fever.—*New York Medical Journal*, October 24, 1896.

Anæsthesia by Ethyl-bromide.—In an article upon the above subject W. H. Kelson states that, when cases requiring small, but painful, operations have to be summarily dealt with, as in the out-patient department of a large hospital, ether, chloroform, cocaine, and the various sprays are liable to prove unsuitable anæsthetics, either from the time they take, the vomiting they cause, the after-attention required, or their inefficiency. Nitrous-oxide gas is, of course, not open to these objections, but over it bromide of ethyl—C_2H_5Br.—has the great advantage of portability and simplicity as regards the apparatus required for its administration.

On the all-important question of safety, reviewing the work of Silk, Chisholm, Terrier, Cumston, Roaldes, and others, and especially of the more recent writers, the verdict would seem, on the whole, decidedly in its favor.

The following cases are cited as examples of small operations for which it proved quite sufficient: 7 cases, removing nails or parts of nails; 6 cases, breaking down adhesions; 4 cases, scraping sinuses; 1 case, partial circumcision; 2 cases, scraping carbuncles; 1 case, scraping small patch of lupus; and 1 case, removing tonsils.

Specimens of the liquid varied in efficiency. One, which had been kept some time, had to be abandoned, as it seemed quite ineffectual, but had not changed color. Another was of a brownish tint, presumably from free bromine, but it had not the suffocating odor of that liquid, and acted well.

The method of administration was as follows: About 1½ drachms (6 grammes) of the bromide were poured on the sponge of an Ormsby inhaler, and the latter applied. There was very little tendency to excitement or struggling, and in about sixty seconds the cornea became insensitive and the breathing snoring. The inhaler was then removed and the operation proceeded with, the patient showing signs of returning consciousness in a variable period, but certainly averaging over sixty seconds.

Vomiting occurred in 2 cases, but seemed to depend chiefly on the distended condition of the stomach. In these cases the inhaler had not been re-applied, but in 2 in which this was done there was no vomiting, though the patients seemed more exhausted afterward.

In 5 cases rigidity came on immediately after the cornea became insensitive. This, in the case of tonsillotomy, interfered with the introduction of the gag, and the inhaler had to be re-applied.

In the case of 1 subject, afterward found to be addicted to alcohol, the bromide having been administered for sixty seconds without any signs of anæsthesia supervening, seemed suddenly to take effect, and great rigidity, rapid breathing, and some lividity were produced, which, however, rapidly passed off.

The respiration was, as a rule, regular, and the pulse somewhat quickened. The recumbent posture, in all cases, was the one adopted. The patient's ages varied from 7 to 40. The younger ones took it most readily. All the cases felt well enough to depart within ten minutes of the administration, though some hysterical symptoms appeared in two while recovering. —*British Medical Journal*, December 12, 1896.

On the Use of Congealed Oils to Prevent the Reunion of Nerves After Their Subcutaneous Division.—J. Leonard Corning, of New York, believing that by the introduction of some new factor, not too complicated, he might be able to prevent the reunion of the nerve after its simple subcutaneous division, tried to carry the above-mentioned principles into practical effect. A non-irritant oil was accordingly prepared by melting the oil of theobroma over a water-bath and adding sufficient paraffin to bring the melting-point to about 105° F. The mode of application was as follows: After section of the nerve-trunk an ordinary hypodermatic syringe, armed with a somewhat coarser needle than that in common use, is filled with the melted oil, and immediately thereafter the needle is thrust into the tissues in such a manner that its point is brought as near as possible to the locality

in the nerve where section is to be made. The syringe is then gradually emptied, care being taken, by moving the needle to and fro, to deposit the oil at right angles to the nerve-stem. The oleaginous zone so formed should completely envelop the nerve and extend along the longitudinal axis of the same for at least an inch and transversely for an inch and a half. Immediately after the completion of the injection, which may be repeated if necessary, cold, in the form of a rhigolene-spray or ice, is applied above the injected zone. As a consequence of this manœuvre, the oil is immediately congealed, and interposes an impassable barrier which checks the prolongations of the axis-cylinders and prevents the rehabilitation of conduction.—*Medical Record*, December 5, 1896.

Treatment of Syphilodermata.—After a careful consideration and trial of the various methods of treating the syphilodermata, W. S. Gottheil, of New York, reached the following conclusions:—

1. In the primary stage, when only the chancre is present, no general treatment; calomel locally.

2. As soon as the secondary period sets in, as shown by the general adenopathy, angina, cephalalgia, and eruption, the internal treatment for mild cases should be $\frac{1}{4}$ to $\frac{3}{4}$ grain (0.16 or 0.50 gramme) of the protiodide of mercury three times a day, continued for three months, or until the symptoms disappear. In severer cases, with pustular eruptions, severe anginas, persistent headaches, etc., a course of six to ten intramuscular injections of 10-per-cent. calomel-albolene suspension (5 to 10 minims—0.33 to 0.66 cubic centimetre), at intervals of five to fifteen days, should be employed.

3. After completion of the course and cessation of the symptoms, apply tonics, etc., without specific treatment, for three months.

4. Then a second calomel course, as above, plus a small dose (15 grains—1 gramme) of iodide of potassium in milk after meals. This to be given whether later secondary symptoms of the skin and mucosæ appear or not.

5. Second intermission of treatment, lasting three to six months, according to the presence or absence of symptoms.

6. In the second year, if tertiary lesions marked by deeper and more localized ulceration are present, give the iodide of potassium in increasing doses (60 to 600 grains—4 to 40 grammes—daily), as may be necessary. Combine with it occasional courses of calomel injections. If no lesions appear, give a mild course of both.

The best local treatment of the syphilodermata is with the mercurial plaster-mull.—*Clinical Medicine*, November 25, 1896.

Superalimentation in Tuberculosis.—Lorchet lays emphasis upon the fact that the food which nourishes and is suitable for a healthy man, is not sufficient for tuberculous subjects; they require superalimentation, which, being methodically administered, modifies and finally greatly exceeds the amount required for nutrition.

This principle, which was established by Debove, led to forced alimentation by gavage, and it has happened that patients attacked by unsurmountable anorexia have in this way recovered their natural appetites. These not uncommon examples would appear to confirm the opinion of

Debove that there is no relation whatever between the appetite of a tuberculous subject and the digestive power of his gastro-intestinal juice.

In his work on the treatment of pulmonary phthisis Daremberg cites two recoveries obtained by forced alimentation, one being that of a young physician in whom the disease had reached the stage of softening and who was unable to take or retain the slightest food. Superalimentation by gavage not only enabled him to bear without any ill effects an exacerbation of the disease six months after the beginning of the treatment, but also to resume his practice under unfavorable climatic conditions, and to eat normally. His relative recovery was maintained in good condition six years later.

The second case referred to an hysterical phthisical patient who rejected everything she swallowed and who was emaciated to a skeleton-like degree. After five or six gavages she was able to swallow without the tube, and seven years later her recovery still persisted. At present gavage is no longer resorted to except in cases of necessity, such as uncontrollable vomiting and absolute anorexia. It is nearly always possible to overcome the disgust of the patients for their food by persuasion.

Meat-powder now forms the basis of superalimentation, as it can be administered by the mouth. Nutritious in small quantities and assimilable without fatiguing the digestive organs, meat-powder forms the aliment *par excellence* of the consumptive; whether given alone, by gavage, or mixed with various liquids, to patients unable to eat and consequently doomed to an early death, or administered in conjunction with their ordinary food to patients having a good appetite, meat-powder is the only substance which allows of an assured and methodical superalimentation.

In apyretic tuberculous cases the matter is very easy, and they can be given large doses of powder. Debove, Grancher, and Bouchard have noticed surprising improvement under these conditions. Even in cases where the patients had vesperal fever, with tuberculous infiltration or even softening, Daremberg has several times seen superalimentation rapidly bring up the general condition and cause the disappearance of the cavernous lesions. As for the patients having a fever, and who must not be overfed, no food is better calculated to antagonize the losses which expose these unfortunates to an early death. As stated by Debove, "we know what the future has in store for the consumptive who ceases to eat. He is consumed by the fever; has sudorific, intestinal, and bronchial losses; while his receipts are *nil*, and his expenses exaggerated."—*La Médecine Moderne*, December 16, 1896.

Blennostasine.—Walter F. Chappell, of New York, states that blennostasine, although somewhat analogous to quinine, is without many of its unpleasant qualities. The compound is a derivative of one of the cinchona-bark alkaloids and is a solid substance which crystallizes from dilute solutions in large, prismatic crystals, or from concentrated solutions in the form of small, needle-shaped crystals, very soluble in water and quite as bitter as quinine.

Blennostasine may be administered in the form of capsules, when

combinations are required; but for many reasons 1-grain gelatin-coated pills are preferable. The dose ranges from 1 to 4 grains (0.07 to 0.25 gramme) or more every hour, according to the effect desired. It has a marked contractile effect on the vasomotor supply of the upper respiratory tract, and, being non-toxic, is especially valuable as a substitute for belladonna, atropine, and similar drugs in hay fever, acute influenza, and rhinitis; also in intermittent rhinorrhœa, laryngorrhœa, and bronchorrhœa. It has a powerful sedative influence on the brain and spinal cord, and markedly diminishes reflex movements.

During the past two years the author has employed many of the alkaloid salts from cinchona in hay fever with only partial success, but during the past season blennostasine has replaced these and other internal remedies with gratifying results,—in fact, all hay-fever patients who have taken the remedy have been promptly relieved, and, though a recurrence of the symptoms the following year may not be prevented, the usual attack may be aborted if the treatment is begun sufficiently early.

Quinine is very popular with the laity for colds in the head and influenza, but it only modifies the symptoms and is rarely curative. Blennostasine has medicinal properties superior to those of quinine for arresting supersecretion, and, if given frequently and in sufficient quantities, will almost invariably arrest the sneezing and the mucous discharges of ordinary influenzal colds.

Hyperæsthetic conditions of the nasal mucous membranes are very favorably influenced by it; in one case seen by the author, in which there was alarming spasm of the glottis, rendered especially dangerous owing to the quantities of mucous which collected at night, was completely controlled by this drug.—*New York Medical Journal*, December 5, 1896.

Auscultation of the Heart During Chloroform Narcosis.—Robert Kirk, of Glasgow, gives the results obtained in two hundred cases of chloroform administration in which he had auscultated the heart. An ordinary binaural stethoscope, sufficiently lengthened by India-rubber tubing, was at first employed, but after some time he adopted the phonendoscope, connecting it, however, with the upper half of a binaural, and having a watch fitted in.

In a few cases the heart was auscultated in bed, either on the morning of the operation or the previous day, and it was found that a considerable acceleration of its action sometimes occurred, while in one case coupled beats developed, when the patient was afterward placed on the operating table. The further investigation may be divided into the following stages:—

1. The effect of the continuous inhalation of chloroform on the heart, as determined by the rate and character of its action before and during the process.

2. The effect on the heart ensuing when the inhalation was stopped or interrupted at any time.

3. The effect of retching or vomiting on the heart, as determined by a comparison of its action before and after these events.

Speaking generally of the entire results, it may be said that nearly every irregularity or variation in the action of the heart described in clinical text-books may come under observation during chloroform narcosis. The most marked changes have their starting-point either (1) at the beginning of inhalation, (2) soon after inhalation is stopped, or (3) within a minute after retching or vomiting. The effects which may be observed at either of these three periods are in some respects alike, and generally consist of acceleration, irregularity, or retardation of the heart's action. The first of these is most commonly the primary occurrence, and the other two secondary; but this is not always so.

The commencement of inhalation may be signalized by a very sudden increase in the frequency of the heart's action, on the one hand, or the equally-rapid supervention of irregularity, on the other.

It is evident that the effects on the heart which may be produced by chloroform, as described in the paper, must be referable to one or both of two causes,—either (1) to susceptibility on the part of the patient or (2) to the method employed. It would appear that the following are indications of dangerous idiosyncrasy: (1) forcible impulse of the heart, with loudness of one or both sounds; (2) irregularity of the heart before inhalation; and (3) liability to tachycardia or irregularity during inhalation. In the last case there is reason to fear a return of the same symptoms in a worse form during elimination. If we might judge from a few cases, syphilitic subjects seemed liable to dangerous results.

The author alludes to two faults observed by him during the administration of the chloroform. First and most important is the fault of stopping in superficial anæsthesia; the second, that of exhibiting an unnecessarily-strong vapor at the very first. He believes that, by avoiding these faults, evil effects on the heart would be reduced to a minimum, and to determine whether we attain this object we must avail ourselves of the help of the phonendoscope.—*British Medical Journal*, December 12, 1896.

The Bronchitis-tent.—In a clinical lecture delivered at the Hospital of the Jefferson Medical College, Philadelphia, H. A. HARE called attention to the so-called bronchitis-tent,—an apparatus which can be readily improvised in any household and which gives the patient great comfort in many conditions in which the respiratory passages are dry or irritated. It is useful in the treatment of ordinary spasmodic croup dependent upon a catarrhal condition of a child's larynx, which may be exacerbated by the fact that the child sleeps in a room heated by means of a furnace, the hot air of which is not only abnormally dry, but often laden with dust. It is of value in the treatment of persons who have been exposed to irritating fumes or gases, and who, as the result, are suffering from inflammation of the respiratory passages. In the early stages of bronchitis in children and adults it does much toward modifying the severity of the cough and the inflammation in the bronchial tubes, while in catarrhal and croupous pneumonia and whooping-cough it, in many instances, proves an invaluble aid to the other measures which are instituted.

The bronchitis-tent can be hurriedly improvised by tying to each

corner of the child's cot an ordinary broomstick, the broom end resting on the floor, and drawing over this frame one large sheet, or two small ones basted together, in such a way that the canopy falls over the broomsticks and down at the sides of the bed almost to the floor. In this way the child lies in a little tent, the top of which is elevated two or three feet above its head, thereby giving it plenty of air-space. At the foot of the bed is placed an ordinary Arnold steam-sterilizer,—an apparatus which can be used not only for the sterilization of milk for infant-feeding, but also for the sterilization of instruments. By having a small hole made in the lid, to which is soldered a pipe running off at an angle of 45 degrees, an apparatus is formed by which one can also develop and distribute steam in any place and in any direction desired. A very small alcohol-lamp serves to disengage a large amount of steam from this apparatus, because only a small amount of water has to be heated at a time. The large pan upon the copper bottom containing the boiling water acting as a reservoir, which continually provides a fresh supply of water, fresh water need only be poured into the apparatus at intervals of several hours. The end of the pipe attached to this sterilizer is made to project under the sheet forming the tent, and in a very short time the child is surrounded by an atmosphere which, on the one hand, is not so heavily laden with steam as to alarm it, and yet, on the other hand, is so warm and moist and balmy as to very quickly soothe its irritated mucous membranes. The child can sometimes be kept in this tent for a number of days with great advantage, and if well enough can be allowed to have its toys. By the use of a little ingenuity in the way of substituting flags for sheets, the physician can very frequently succeed in making his little patient happy in his confinement in the tent.—*The Therapeutic Gazette*, November 16, 1896.

The editor greatly regrets to have to announce the resignation of Mr. Eugene Devereux as a member of the editorial staff of The Universal Medical Journal. During the years that Mr. Devereux has been connected with the central office his ability and his gentlemanly qualities were greatly appreciated; he therefore not only gained the respect of those connected with him, but also their sincere friendship.

☞ ***Any journals, exchanges, reprints, monographs, or books not sent directly to the editorial office, 28 rue de Madrid, Paris, will not receive attention either in the "Annual" or the "Universal Medical Journal."***

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OF THE

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES,

Issue of 1896.

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28 RUE DE MADRID, PARIS, FRANCE.

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THE HYPNOTIC EFFECTS OF PELLOTINE.

Prof. F. Jolly employed pellotine muriate on account of its ready solubility in water; his experience covers forty cases. From $\frac{3}{5}$ to $\frac{9}{10}$ grain caused several hours' sleep within a half to one hour after administration. In excitable and delirious patients these doses were insufficient. Even 2 grains did not produce sleep, but had a calming effect, which lasted all day. From $\frac{3}{4}$ to $1\frac{1}{4}$ grains were found equal in effect to 15 grains of trional or 22 to 30 grains of chloral. Prof. Jolly's report is generally favorable, and he concludes that he will continue the use of this new agent.

THE RATIONALE OF THE TREATMENT OF GOUT.

Dr. A. E. Garrod states that three results to be aimed at clearly present themselves: 1. It is desirable to limit as far as possible the formation of uric acid in the body. 2. It is desirable to promote the excretion of the accumulated urate in the urine. 3. It is desirable, if possible, to remove the deposits of sodium biurate in the solid tissues. It is, therefore, of interest in this connection to call attention to lycetol, a new uric solvent. The administration of lycetol in gouty cases has been promptly followed by increased diuresis, augmented excretion of uric acid in the urine, and relief of the subjective disorders. Its pleasant taste and absence of irritating effects on the stomach are additional advantages which commend its use in the more chronic forms of gouty troubles.

APOLYSIN.

Cerna observed relief of pain in lumbago and muscular rheumatism from the use of apolysin. Nencki and Jaworski used it successfully in febrile affections and neuralgia. Dr. G. Greif obtained an excellent result in obstinate infra-orbital neuralgia of twelve years' duration and in hemicrania. In influenza it relieved pain and reduced temperature. Apolysin may be given to adults in single doses of from 15 to 30 grains.

GLYCEROPHOSPHATES.

These preparations are of value in all cases where it is necessary to improve the nutrition and stimulate the activity of the nervous system, as in neurasthenia, chlorosis, anæmia, ataxia, phthisis, etc. They are also beneficial in Addison's disease and scrofula. Internally, the daily dose of the glycerophosphates of calcium, sodium, potassium, or magnesium is from 5 to 15 grains; of the iron combination, from $1\frac{1}{2}$ to 3 grains.

EUCAINE HYDROCHLORATE.

This substance, in 2- to 5-per-cent. solution, has been used in various affections of the eye. Schleich esteems it as a serviceable local anæsthetic to mucous membranes, and Saalfeld has employed it in painful skin diseases. Dr. Wehmer has utilized it in a number of very complicated gynæcological operations, and Dr. Hal Foster in operations upon the nose and throat. It has been successfully applied to dentistry and genito-urinary examinations.

SUPERIOR TO PEPSIN OF THE HOG

INGLUVIN

A Powder—Prescribed in the same manner, doses and combinations as pepsin.

A SPECIFIC FOR VOMITING IN GESTATION IN DOSES OF 10 to 20 Grains.

INGLUVIN IN SPAIN.

The following letter on Ingluvin was recently received from Dr. F. VIDAL SOLARES :—

"I have to acknowledge duly having received the Ingluvin which you were good enough to send me for the purpose of proving the therapeutic effects of this excellent medicine amongst my clients.

"The results which I have obtained in my dispensary for sick children, together with my private cases, have been extremely satisfactory. In fact, I have treated various cases of dyspepsia in which the patients, fully prostrated and without power to digest their food, have, thanks to the use of Ingluvin, been rapidly cured.

"In the case of 'apepsia,' or loss of appetite in children, accompanied with diarrhœa, I have obtained good results from the use of Ingluvin, which therapeutic agent is prepared by the house of Warner & Co., from the gizzard of the chicken.

"I have also found Ingluvin useful in the organic complaints of the stomach, and in the indomitable vomiting and painful dyspepsia to which women are subject during pregnancy. I have employed the agent, moreover, in the convalescent state of many patients, when I have not only noted the alteration of the gastric secretions, but of the extreme instability of the stomach.

"I have not the least doubt that the Ingluvin will, in a short time, become a substitute for pepsin on account of its being more active than the latter; but as is only logical, you should obtain a rapid result by bringing this preparation to be known in all Spain by the opportune measure you usually adopt.

"Wishing you the success which you so fully merit, I am," etc.

Glyco-Thymoline

(KRESS).

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appeared in the January issue of that journal. Unpublished portraits illustrated the article and will the succeeding one.

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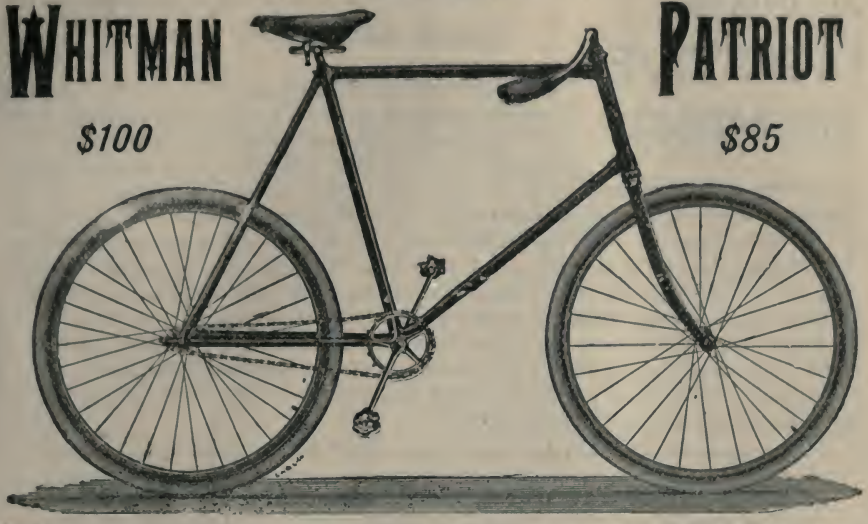

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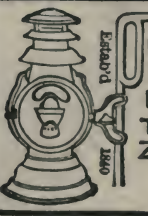

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Selections from Society Proceedings.

FRANCE.

Société française de Dermatologie et de Syphiligraphie.

Surgical Treatment of Lupus.—A patient suffering from lupus of the face was presented by Nélaton, who stated that, when he first came to the clinic, there was, besides the lupus, an enormous epitheliomatous mass. After removing this he instituted treatment for the lupus, which consisted in carefully scraping away the diseased tissues and filling the gaps made, at the same sitting, by Tagliacosi's method. He also presented a patient who was cured of a lupus of the face in six weeks by curettage and cauterizations with the thermocautery.

Brocq declared that the results were remarkable, particularly in the case of the first patient. In the second he found the cicatrices showing marked tendency toward keloid transformation. He stated that, eight months since, he was consulted by a woman having an enormous facial lupus, which had resisted all attempts at medical treatment. Surgery was then resorted to, and after four weeks she returned, greatly improved. He considered that in all the cases in which medical treatment failed surgical procedures should be resorted to. Nélaton argued that the keloids were mainly due to the use of the thermocautery.

Du Castel remarked that, since Nélaton considered the thermocautery responsible for the production of keloids, it would be well to beware of cauterizations in the treatment of facial lupus, and called attention to the fact that the use of chemical caustics was liable to cause similar results.

Nélaton then stated that all the diseased points had been cauterized, but that the keloids were only formed in the regions where the cauterizations were very deep.

Brocq believed that it was especially necessary to penetrate very deeply in treating lupus of the face.

Du Castel presented a patient having an erythematous lupus. The primary symptoms were first noticed eight years ago, and the disease progressed by irregular attacks, with exacerbations and improvement without any recognized known cause. The face, ears, and scalp were covered with erythematous plaques and cicatricial spots. Five years previously the patient had severe facial erysipelas. Since that time the centre of the face had become covered with a thick, squamous, fatty mask, adhering closely to the dermis and giving the patient a very peculiar appearance. The backs of the hands are covered with distinct plaques of erythematous lupus and cicatrices; these lesions are also very marked in the palms of the hands. They become aggravated every winter and improve in the summer, which is the rule in erythematous lupus of the hands. The patient is not phthisical, but one of her sisters died of pulmonary consumption and one of her children suffers from suppurative cervical adenitis.

Société de Chirurgie.

Discussion upon Cancer of the Liver Surgically Considered.—Routier reported a case, observed by him in 1891, illustrating the difficulty in diagnosing cancer of the liver. The patient was a woman who had been having trouble with her liver since about a year. There was a tumor upon the anterior border of the organ. The diagnosis was undecided as to whether it was cancer of the liver or a tumor of the biliary vesicle. A puncture was made and pus withdrawn, and an hydatid, suppurating cyst of the liver was diagnosed. A large drainage-tube was then inserted in place of the large cannula of the trocar, from which a grayish, dirty-looking substance exuded. Several days later fever set in. Laparotomy was then decided upon, and a sac containing detritus resembling hydatid *débris* was found. The patient died several days later. The autopsy showed the existence of cancer of the liver (epithelioma with multiple nuclei), and the sac observed was a modified cancerous nucleus, which had been mistaken for a suppurating hydatid cyst.

Quénu stated that he had seen a case in 1895 in which the conditions were as follow: The patient was a cachectic, elderly woman who had a painful and voluminous tumor of the liver. Fever existed, together with all the signs of abscess of the liver, and a probable cancer was diagnosed. Surgical intervention was proposed and accepted. Lateral laparotomy was performed and the principal mass was punctured, a sort of pus and softened matter being found and removed. The histological examination of this substance demonstrated that it was composed of typical degenerated epitheliomatous cells. Consequently, in this case, like in that reported by Routier, the cancer of the liver had given rise to a sort of abscess with a puriform nucleus, which presented the appearance of an abscess of the liver.

Ricard stated that the question of surgical intervention in malignant

tumors of the liver had also been brought before the society by Segond, in reference to a personal case. On this occasion Terrier had described a process of intrahepatic suture invented by a Russian surgeon, which allowed of the extirpation of such tumors without any appreciable loss of blood, and his pupil, Auvray, gave the results of three very interesting experiments. Hæmorrhage forms the serious danger which makes the extirpation of malignant tumors of the liver very perilous. The newly-perfected procedures may, perhaps, render possible the extirpation of non-vascular hepatic tumors, but it is well to remember that there are essentially vascular tumors of the liver in which the slightest wound, even that of a needle, may be rapidly fatal. Terrier also had a case in which a simple puncture made with a bistoury caused the death of the patient upon the operating-table. The speaker himself had a case of this kind, in which he had great difficulty in controlling a hæmorrhage due to a puncture made with a trocar almost as fine as a hair.

The difficulty, not to say the impossibility, of a clinical diagnosis of these tumors, which are fortunately rare, warranted the speaker in giving an account of the following case: "The patient was a young woman, about 32 years old, who had been suffering since several months from dyspeptic disturbances with vague epigastric pains. She had been treated some little time for a gastric affection, when a swelling showed itself in the epigastrium. It was at this time that I was called in. The swelling was median and distended the epigastric depression; it was about the size of a fœtal head, was regular, and almost fluctuating; it was mobile in the respiratory movements, and absolutely indolent. I diagnosticated an hydatid cyst of the liver, and even to-day, while acknowledging the error made, I hardly know what other diagnosis could reasonably have been made. In order to confirm my opinion I made a puncture with a Pravaz syringe. This puncture did not give issue to any liquid, but this being frequently the case in hydatid vesicular cysts and my needle having been so small, my diagnosis remained the same, and surgical intervention was decided upon. I practiced laparotomy with the aid of two of my internes. The abdomen being opened, we at once saw the hepatic tumor, showing the shape and dimensions as previously outlined, but, instead of having before us the more or less translucid covering of an hydatid cyst, we found hepatic tissue of a slightly-violet hue. Moreover, the growth, instead of expanding the sharp edge of the liver, projected over it without involving it,—a condition scarcely ever observed in cases of distension of the liver by a parasitic tumor. I made a puncture at the culmination point of the tumor, with the small trocar of Potain's apparatus. A jet of dark blood sprang out as though the point of the instrument had penetrated into an enormous blood-vessel. I raised the point of the instrument several centimetres and pushed it in, in another direction. The result was the same, a veritable jet of blood coming out through my cannula. I then withdrew the trocar, having decided not to pursue my explorations any farther, but the orifice continued to bleed in an alarming and continuous way. I endeavored to close it by Lembert's suture, but the perforations made by the needle gave rise to the

same hæmorrhage, which I was only able to control by means of cauterizations at a dull-red heat, and compression during more than twenty minutes. Finally, the hæmorrhage being arrested, I was able to close the abdomen. The results of the operation were limited to severe abdominal pain during the first few hours. The stitches were withdrawn on the tenth day. The patient seemed well for about six weeks and believed herself cured. Unfortunately the symptoms soon began to be aggravated; the tumor increased in volume, becoming almost double the size in a few weeks; an hæmorrhagic effusion occurred, which necessitated several punctures. The lower limbs became œdematous, the cachexia made rapid progress, and the patient succumbed four months and a half after the operation. Unfortunately an autopsy was not allowed, but the rapid evolution of the malady and the manner of its termination leave no doubt as to the malignant nature of the hepatic tumor and would suggest a vascular sarcoma.

"In reporting this case I do not mean to decry the extirpation of hepatic tumors in general, but rather to call attention to these exceptional tumors, the excision of which does not appear to be feasible."

UNITED STATES.

Suffolk District Medical Society.

Treatment of Malignant Disease.—Gay, alluding to the care that should be given in surgical diagnosis, states that, figuratively speaking, there should be no such thing as a sprain of the wrist nor a contusion of the hip. The lesson intended to be conveyed is that every injury of the wrist had better be regarded as a Colles fracture, unless there is certainty of its being something else; and that every injury to the hip, especially if the person cannot walk, is a fracture of the neck of the femur, until it is proven beyond a reasonable doubt to be something different. Were these maxims adopted by physicians during the earlier part of their professional life, we should, the speaker thinks, see fewer cases of unrecognized broken hips and of "sprains" of the wrist having a deformity characteristic of Colles's fracture.

A like assertion might well be made in regard to the nature of many small, young tumors, especially of the female breast. They are malignant until properly investigated and found to be benign. By adopting this rule more of these lumps would be removed at the only time when it is possible to effect a permanent cure of malignant affections, if there be such a period in their growth.

The question is: can malignant growths be detected early enough to be removed before the lymphatics have become involved beyond the surgeon's reach? Unless that can be done, we need not expect a large percentage of permanent cures from operations or from anything else. This is a difficult matter to decide, from the fact that so few patients come to our notice sufficiently early. And, furthermore, some of us are too prone to advise

these patients to wait until the growth shall present diagnostic features of more or less distinctness, thereby losing the golden moment for interference.

As to what constitutes a "cure" of malignant disease, Volkmann, so often quoted, states that, if a woman with cancer of the breast remained free from disease at the end of one year after its removal, a cure might be hoped for; if she remained well at the end of two years, a cure could be expected, and, if free from disease at the end of three years, a cure was almost certain to be effected. We all know that this is not true here.

Twelve years ago last March the speaker had removed the tongue and anterior portion of the lower jaw for malignant disease. There was no return for ten years. The patient now has a large mass of cancerous glands upon both sides of the neck. In his opinion, he was never cured, although he had no outward evidence of the disease for ten years after the last operation. If a person, having been operated upon for malignant disease, live many years and die from something else, it is fair to say that he was cured of the original malady. But should it ever return, however late in life, he questions if a permanent cure—in the sense that we speak of cure of fatty tumors, for instance—can be claimed.

There is one other point in connection with malignant disease which does not receive quite the attention from surgeons that its importance demands, and that is the after-treatment. Too many operators think that the patient, having recovered from the operation, there is nothing more to be done, until the disease again makes its appearance. While the speaker is not and from the nature of the thing cannot be positively certain that drugs do any real good in delaying or preventing a recurrence of malignant disease, yet he had seen enough benefit attending their persistent and prolonged use during the past fifteen years to justify their continuance and to recommend them to others. He prescribed the compound tincture of iodine in doses of 2 to 5 drops three times a day after food. J. S. Wright, of Brooklyn, gives the bromide of arsenic in doses of $\frac{1}{40}$ to $\frac{1}{10}$ grain (0.0015 to 0.006 gramme) three times a day in breast cases, and thinks he has seen positive benefit derived from its prolonged use. Those patients should never be lost sight of, but should be seen at intervals of a few months, or at once, should any suspicious change take place in the scar or vicinity. In this way will the patient's mind be occupied in a rational way, his hope be stimulated, and, if fortunate, he will be kept out of the clutches of the swindlers, who are always lying in wait for these victims of malignant disease.

Early and thorough operations; intelligent dissections with a view to tracing infected lymphatics, as recommended by Dr. Warren; and persistent and prolonged after-treatment constitute the groundwork of the modern method of dealing with malignant affections. Although the results have been hitherto far from satisfactory, it would seem likely that it is along these lines that we must expect any great improvement in permanently eradicating the disease.

Alluding to malignant disease as it affects the urinary tract and in gen-

eral to cancers in operable regions, P. THORNDIKE laid emphasis upon the fact that it is not proper that we should be deterred from performing such operations because of the existing statistics which are at our disposal. Gross's statistics for cancer of the kidney show 70-per-cent. mortality; statistics collected last year in much larger numbers show that up to 1890 the mortality was almost as great as Gross's,—50 per cent. to 60 per cent., —while since 1890 the mortality had been between 20 per cent. and 25 per cent.; so that, granting that the indication for such operations is an exceptional one, we should not be deterred from operating on the occasional suitable case by this mass of old statistics which are practically the only ones at our disposal at present.

Speaking of the percentage of cures, WARREN had just published some statistics concerning the breast, and had taken all classes of cases that came to the hospital, of all degrees of malignancy without making any particular selection. He had undertaken to operate on all cases which were capable of being mechanically removed as far as the naked eye could see, and had obtained in a series of sixty-two consecutive cases about 27 per cent. of cures,—that is, cases that have gone over three years without recurrence. He had seen one or two examples of recurrence after long periods, such as Dr. Gay refers to. In one patient he had removed, two years before, a nodule from the breast operated upon seven years before for cancer, and Warren regards that as a case of a new infection of the paramammary glandular structure,—that is, primary disease in the glandular structure which is independent of the mammary gland.

In regard to the post-operative treatment of cancer, he recommended the post-operative treatment of most surgical diseases. The surgeon should not be satisfied with the position that an operation is a panacea; it should be merely an aid to further treatment, and therefore we ought to experiment as much as possible in the post-operative treatment of malignant disease. He had tried the bromide of arsenic, and also the solution known as Roswell Park's solution,—arsenic, mercury, and gold (prepared by Metcalf). From 10 to 25 drops, three times a day, given a year or two, are supposed to have a deterrent effect on the recurrence of the disease. Coley has obtained a toxin for the treatment of cancer. A number of drugs are used for that purpose, but thus far no satisfactory results have been obtained. The latest one, which he is now using in connection with E. S. Wood, is an article known as "thiosinamin," composed of oil of black mustard, 2 parts; absolute alcohol, 1 part; aqua ammonia, 7 parts.

An alcoholic solution of this is used, and about $\frac{1}{2}$ to 2 grains (0 03 to 0.14 gramme) twice a week is given for several months, as recommended by Sinclair Tousey. The injection for cancer of the breast is made behind the scapula. It is said to be beneficial for lupus, keloid, and inoperable cancer. A careful inquiry in other cities as to other drugs has brought out a few satisfactory results. Park uses a 1 to 500 solution of pyoktanin injected into the tumor. He thinks he has delayed the growth by this treatment. Serum therapy has been used, but careful inquiries fail to bring out any satisfactory results from any form of treatment.

Treatment of Diphtheria.—C. F. WITHINGTON having read a paper on serum therapy, McCOLLOM stated that, from September 1, 1895, to October 1, 1896, at the South Department of the Boston City Hospital, there have been 1972 cases of diphtheria treated with antitoxin; not simply mild cases that would get well without treatment; not slight attacks of sore throat in which there were positive cultures; but clinical cases of diphtheria in which there was a considerable amount of membrane, and the cultures showed the presence of the bacillus of this disease. Of these 1972 cases, 1906 were discharged well; 266 died, giving a percentage of mortality of 13. In the old wards of the Boston City Hospital, from 1891 to 1894, when antitoxin was not used, there were 1062 cases treated, with 493 deaths, giving a percentage of 46. It would seem that this diminution in the death-rate must be due, in a great measure, to the use of antitoxin. Of these 1972 cases, 70 died within twenty-four hours of admission,—a certain number of these within two or three hours, and a part within twelve hours of admission. If these 70 moribund cases are eliminated, the percentage of mortality is found to be about 10.

A great deal has been said about the injurious effects of antitoxin. It has been claimed that it causes albuminuria. Of some 142 patients, the urine of whom was examined before and after the use of antitoxin, it was found that in 76 albumin was absent during the whole course of the disease. In 32 cases the amount of albumin was the same. In 19 cases albumin was diminished and in 15 it was slightly increased, but never to such an extent as to give cause for anxiety. Much has been said about the eruptions that follow the administration of antitoxin. While it is perfectly true that various eruptions are caused by the use of antitoxin, these eruptions are not serious complications. About 120 of the 1972 cases had post-antitoxin eruptions. There is another complication that is, perhaps, a greater source of annoyance than these eruptions,—namely, joint-pains which simulate rheumatism and may continue from twenty-four to forty-eight hours.

Perhaps one of the most striking beneficial effects of antitoxin is in the laryngeal cases of diphtheria, in which intubation seems imperative. After twelve hours, in certain cases, the breathing becomes easy and regular, and the case proceeds uninterruptedly to a cure. The progress of cases that come to intubation is rendered much more satisfactory by the use of antitoxin. A report of 150 cases compiled by F. E. Waxham, of Chicago, before the days of antitoxin, gives the percentage of mortality as 72 per cent. In 100 cases reported at about the same time by O'Dwyer, of New York, the percentage of mortality is 73. In the Boston City Hospital, for the year ending January 31, 1895, the percentage of the mortality of intubation was 83. In the South Department, for the year ending October 31, 1896, there have been 200 intubations, with a death-rate of 53 per cent. It must be borne in mind that many of these cases were moribund at the time of entrance. Such a marked diminution in the death-rate can only be explained by the use of antitoxin.

The action of antitoxin in favorable cases is quite characteristic. At the end of twenty-four hours after the injection the membrane commences

to roll up at the edges. At the end of forty-eight hours it is completely detached. In specially-severe cases it is sometimes necessary to give two or three doses at intervals of twenty-four hours. Alcoholic stimulation is a very important factor in the treatment of cases of diphtheria. It is not sufficient to give antitoxin and do nothing else. The patient must be stimulated and nourished in every possible way.

A good deal has been said regarding the situation for the injection. The speaker had tried the thigh, abdomen, lumbar region, and thorax, and had come to the conclusion that the upper part of the thorax near the posterior axillary line is the best place.

The dose of antitoxin has not been absolutely settled, but there is no evidence that a large dose gives rise to any trouble. The different preparations vary so much in strength that it is impossible to lay down any definite rule regarding the quantity to be used; 2000 units, which in one preparation may mean 5 cubic centimetres and in another preparation 10 cubic centimetres, should be given as an initial dose to an adult. In the case of children, a proportionately-smaller dose should be given. The effect of antitoxin in diminishing the disagreeable odor in septic cases is very marked,—so much so that it cannot fail to attract the attention of any one who treated diphtheria before the discovery of this agent. Any one who treated diphtheria before the days of antitoxin can have only one opinion regarding its efficacy.

Withington emphasized the importance of the use of injections of antitoxin in cases of presumed diphtheria when the cases first come under observation. The value of the treatment is so largely dependent upon the early stage at which it is used that no time should be lost; and if the case is one of undoubted diphtheria all those who have had much experience with antitoxin would say it should be given at once. The question then comes as to what shall be done in doubtful cases,—cases where we see a throat which looks suspicious, where we must wait twenty-four hours for the bacteriologist to make the diagnosis for us. In children where we have reason to think an exposure has occurred,—as, for instance, in those attending public schools,—he believes it is the part of wisdom not to wait for the bacteriological examination, but to make an injection of antitoxin, and, if it turn out that the patient did not have the disease, no particular harm is done. On the other hand, if twenty-four to forty-eight hours are lost, they cannot be made up. It is proper, under these circumstances, to give the patient the benefit of the doubt.

Tuberculin and Antiphthisin.—V. Y. Bowditch confined his remarks to personal experience in the use of tuberculin and antiphthisin,—remedies with which he had only limited experience, but in the use of which the conditions recommended have been faithfully carried out. He had previously alluded to his experience with tuberculin at the Carney Hospital at the time when the excitement over Koch's lymph was at its height. One of these cases was tubercular disease of the skin on the hand; the others (only two) cases of more or less advanced phthisis. In all of those, as far as any remedial effect was concerned, the results were negative; but,

although he had seen nothing to indicate any deleterious effect from the remedy in his cases, the experience of others made him feel that he should wait for further news from Koch before trying it again.

He had not yet changed his mind, even though impressed by the experience of those whose opinions he respected, and he kept in mind Virchow's allusions to the possibility of starting up fresh processes of miliary tubercle. Certainly tuberculin is not to be used except under the strictest supervision.

When Klebs proclaimed that in antiphthisin we had a remedy which could be used with perfect safety, as it contained the virtues without the evil effects of tuberculin, he felt it could be used at the Sharon Sanitarium without fear. The injections, according to directions, were given per rectum, in doses beginning with 0.1 gramme (1½ grains) and increasing up to 2½ grammes (38 grains). Seven patients received this treatment for periods varying from four or five weeks to four months. In all, greatly to his disappointment, were the results negative. There was doubtless improvement in some, but no more than had been frequently noticed by different methods. In one case, in which one lung had been affected for several months and in which there had been very marked improvement, a sudden, violent process appeared in the other lung after a month's use of antiphthisin, and the patient has since then gone slowly and steadily down hill. It may have been simply coincidence, and it probably was, but he could not help wondering if it would have happened had the remedy not been used. He had used it also for three months at the City Hospital, in a case of phthisis not far advanced, and doubtless there was improvement in the physical signs and the cough, but, again, no more than he had often seen after rest and good nursing. The temperature, usually high, was not affected, apparently, by the remedy.—*Boston Medical and Surgical Journal*, December 31, 1896.

Southern Surgical and Gynæcological Association.

Vaginal versus Abdominal Section for Pus in the Pelvis.—W. D. Haggard, Jr., of Nashville, described the transitional periods in the treatment of pus in the pelvis,—vaginal puncture superseded by abdominal section and removal of pyosalpinx, and removal of the uterus and its adnexa *per vaginam* by the French and through the abdomen by the American school. These operations had given way to modern vaginal section and evacuation and drainage of all pus-pockets. The abdominal route afforded visual inspection of the field. The attack on morbid masses could be made with safety to visceral integrity. If pus accumulations were multiple, rupture and peritoneal soiling were inevitable; that was the supreme disadvantage of abdominal incision. The author had often seen the pelvis deluged with pus with impunity. He had also seen patients die within twelve hours from fulminant sepsis from peritoneal contamination. He referred to a mortality of 18.5 per cent. in a series of collected cases of laparotomy for pus, done in five metropolitan hospitals in the last year, and asked what it must be in the "unheard-from precincts." The abdominal method offered

the best approach in tuberculous inflammation of the ovaries and tubes and in cases of small, unilateral pyosalpinx. The author referred to the advantages of exploring the pelvis for retro-uterine tumors and the adnexa by vaginal section.

The situation of pus in the pelvis in most cases made vaginal incision extraperitoneal,—a minor procedure giving major results. There was no shock, there was no risk, nor was there disturbance in convalescence. In prolonged sepsis from large abscesses, posterior section and drainage were life-saving procedures. The special indications were : 1. Early cases of acute suppurating salpingitis. 2. Incipient post-puerperal peritonitis. 3. Large pyosalpinx and true pelvic abscess. The first group included early gonorrhœal and abortion cases. In puerperal cases incipient peritonitis and puddles of pus in Douglas's space imperatively demanded incision. Should simple pus-letting in any of these cases not effect a cure, a subsequent operation for the removal of relics of previous ravages could be done without the dangers incurred in the presence of pus. The field of vaginal section was to prevent suppuration in early cases, to anticipate it in puerperal cases, and to save life in desperate cases. Its application to the pelvic inflammatory processes and to pus in the pelvis was one of the greatest surgical triumphs of the age.

Joseph Taber Johnson, of Washington, argued that, while the vaginal method had a great many points in its favor and was being resorted to more and more in cases of large pus collections in the pelvis, yet those who had been familiar for a considerable time with the abdominal route could operate more conveniently and dextrously by this method and with greater safety to the patient than by the vaginal. He could not agree with the speaker that the vaginal operation might be done without any risk to the patient. Sometimes in operating through the vagina for the purpose of removing the uterus and its adnexa, or for large pus collections high in the pelvis, where it was necessary to manipulate the parts a good deal and to do a thorough enucleation, the surgeon was likely to tear the intestine, the bladder, the ureter, or a large vessel which was out of sight. In such cases the abdominal was much safer than the vaginal route.

Charles P. Noble, of Philadelphia, did not feel that either the abdominal or the vaginal method possessed all the advantages, but, if restricted to one or the other, he should prefer the abdominal rather than the vaginal route. An objection formerly urged against the abdominal route was the large percentage of hernias which followed this method. Only a week since he had tabulated the operations he had done for four years, which had amounted to 397 abdominal cases, in which he had used the buried suture in closing the abdominal wound. Of this number the wounds had suppurated in 7 cases, while in 390 they had healed by primary union. Among the 7 patients in whom suppuration had occurred, 1 had had a hernia. There had been a large umbilical hernia in 1 of the 390 cases. Aside from these 2 cases, he had not had any hernias in his operative work for the last four years where the buried suture had been used. If the patient were in a condition to permit the surgeon to do ideal work, he

thought the question of hernia was such an insignificant one that it might be left out of consideration.

Howard A. Kelly, of Baltimore, said that, whenever possible, pus in the pelvis should be treated by vaginal puncture or section posterior to the cervix, without sacrificing any of the uterine appendages. A large percentage of the patients thus treated would have no further discomforts. Illustrative cases were cited. One of the principal arguments advanced by advocates of the vaginal route in removing the uterus, the tubes, and the ovaries was the excellent drainage that could be secured by this method. In Dr. Kelly's opinion it was unnecessary to take out the uterus to get drainage.

L. S. McMurtry, of Louisville, thought that a deep impression had been made upon the profession in the last two years by the vaginal method of operating for pus in the pelvis. This procedure, however, was by no means a new one. Battey, in his original operations upon the ovaries, had attacked the pelvic organs through the vault of the vagina. The method of attacking accumulations of pus in the pelvis by vaginal puncture and drainage had been the universal practice of abdominal surgeons for a long time. The sacrifice of the uterus, in the majority of cases of suppurative pelvic inflammation, was unnecessary. Surgery should be confined within the limits of removing only such diseased tissue or organs as it was necessary to remove for the complete cure and restoration of the patient.

J. Wesley Bovee, of Washington, objected to anterior colpotomy in dealing with pus cases unless the accumulation of pus was on top and in front of the bladder. He thought that in these cases drainage through the anterior vaginal route could not be done, and the pus could not be reached in many cases. He believed it was not necessary to remove the uterus at the same time the tubes were taken out. He did not want to be understood as being opposed to the vaginal route in very urgent cases.

R. B. Maury, of Memphis, had, during the last two years, thoroughly studied the subject of vaginal hysterectomy, as he had done quite a number of these operations without any mortality, any accident, or unpleasant result. But he would not undertake to say that we ought to substitute it for laparotomy. Both abdominal and vaginal hysterectomy were operative measures that surgeons must avail themselves of according to the circumstances of the case. Dr. Maury cited the histories of two patients that he had treated within the last thirty days, which beautifully illustrated the advantages of the two methods.

W. E. B. Davis, of Birmingham, Ala., said the practice of incising pelvic abscesses was so old that it hardly required discussion, but the method of attacking pyosalpinx by vaginal section was comparatively recent. Unquestionably vaginal incision for pus confined to the tubes and ovaries would save these important organs in a good proportion of cases. In all cases of large pus collections in the pelvis nothing should be done more than to incise the abscess and drain, and then, later on, the surgeon should be prepared to do an abdominal section, if necessary, but he thought the surgeon would rarely have occasion to do this. Total ablation of the

uterus and its adnexa was unnecessary in many of the instances in which it was practiced by some surgeons.

Cholelithiasis.—A paper on this subject was contributed by A. M. Cartledge, of Louisville, in which the author reported several interesting cases. He dwelt upon cholecystostomy and cholecystenterostomy, pointing out the indications for each operation. He considered cholecystostomy the only operation that was applicable in the cases cited. In his opinion there were no cases that primarily demanded cholecystenterostomy.

James McFadden Gaston, of Atlanta, agreed with the speaker that, in ordinary cases of gall-stones in the gall-bladder, with obstruction of the cystic duct, the simplest procedure was to lay open the abdominal wall, attach the gall-bladder to the incision, and remove the gall-stones. But in a large proportion of cases of complete obstruction he doubted whether there would be restoration of the flow of bile through the cystic duct into the gall-bladder. With reference to the comparative value of cholecystostomy and cholecystenterostomy, the two operations were applicable to entirely different conditions. No one would operate and expect benefit from a cholecystostomy except to establish drainage for the bile in a case of permanent occlusion of the common duct, and this was the only condition in which the advocates of cholecystenterostomy had ever alleged anything for it.

John D. S. Davis, of Birmingham, Ala., emphasized the point that patients frequently had gall-stones without the manifestation of symptoms, particularly the symptom jaundice. He did not believe that it was ever wise to resort to cholecystenterostomy as a primary procedure. The surgeon should first resort to drainage, and then, if relaxation did not take place and the flow of bile was not effected, cholecystenterostomy should be done.

George Ben Johnston, of Richmond, Va., spoke of the diagnosis of gall-stones. He was convinced that, if examinations of suspected cases of gall-stones were as careful and minute as they should be, surgeons would frequently find them. It had been his experience that enlargement of the gall-bladder did not always occur where a gall-stone existed, but that a condition which simulated enlargement of the gall-bladder frequently did exist, this condition being due to the presence of numerous dense adhesions found in the neighborhood of the gall-bladder, gluing it to every tissue with which it came in contact. One thing which struck him as very singular in connection with the presence of gall-stones was that the size of the stone or stones seemed to make no difference in the production of symptoms. In regard to hæmorrhage, it was generally admitted that cases in which cholæmia was profound were the ones in which we were to expect hæmorrhage, and by no known method could this hæmorrhage be successfully controlled. The cholæmic condition seemed to invite a fatal hæmorrhage. The experience of operators in this field of surgery was that, when cholæmia was profound, hæmorrhage of a fatal character was to be expected. He considered cholecystostomy a proper procedure in all cases, except those where the obstruction was in the common duct and could not be relieved.

W. E. B. Davis said that surgery of the gall-bladder for the removal of gall-stones had given brilliant results, but there were still questions in regard to operative procedures on the ducts that were not, as yet, definitely settled. He did not believe the speaker referred to cholecystostomy as being the operation of choice in cases where the obstruction of the duct could not be removed, but he must have had in mind the procedure advocated by Murphy, of resorting to this operation in a case of gall-stone in the gall-bladder where there was no obstruction in the duct. Murphy had resorted to cholecystenterostomy instead of cholecystotomy, and he thought that Dr. Johnston did not intend to convey the idea that he would not do cholecystenterostomy where the obstruction in the duct could not be removed. Cholæmic cases were bad to operate in. Perhaps in not more than 5 or 6 per cent. of the cases was the obstruction found in the common duct. Some years ago the speaker had made experiments which conclusively showed that the surgeon could incise the duct and drain with gauze without peritonitis following. A paper on this subject had been read by him before the American Medical Association in 1892, since which time he had done further experimental work in which sutures had not been used after the stone had been removed from the duct, and, while several of the patients had very nearly died from profound cholæmia, and eventually did die, yet in the cases in which this method had been resorted to the abdominal cavity had been walled off and peritonitis had not resulted.

George A. Baxter, of Chattanooga, directed attention to the frequency of gall stones unattended with the ordinary symptom of colic, and cited an illustrative case in which there had been found post-mortem three large stones in the gall-bladder.

F. W. McCrae, of Atlanta, reported a case in which there had been repeated attacks of colic with profound cholæmia. An operation had been undertaken with the idea that the obstruction had been in the common duct, and that there had been stones in the gall-bladder. When the abdomen had been opened in the presence of several physicians the liver had been found to be much enlarged and reaching almost to the umbilicus. Instead of finding the gall-bladder enlarged, he had found a fibrous cord not larger than his index finger. The common duct, from disuse, had been reduced to a mere cord. A calculus had been found in the hepatic duct which extended up into the transverse fissure of the liver. He had not known what to do in this case, and, after consultation with his colleagues, he had closed the abdomen. The patient had died five days later from exhaustion. If anything could be done for such patients he would like to know it.

Mental Complications Following Surgical Operations.—John T. Wilson, of Sherman, Texas, thought that it was a strange fact that, while surgical operations would sometimes cause serious mental disturbance, on the other hand, those same operations would sometimes cure it; especially was this the case with some melancholiacs. Many women who labored under attacks of melancholia caused by some disease of the genital apparatus had been cured when relieved of the physical defect by operation; others had been

much improved, and yet some had received no benefit. The question might very properly be asked: Why should a surgical operation produce an attack of insanity. This could no more be answered in every case satisfactorily than the question of why some persons became insane from the many other causes to which it was attributed, for in most cases the mental complications were a surprise, and no good reason could be given why they should follow. In others, however, a logical explanation might be had. If the patient were a high-strung, nervous individual, easily excited, and unable to bear pain, the great and increasing dread of the anæsthetic, the operation, or both would so affect him that he would lose control of the will power and the explosion would come after the operation and reaction from the anæsthetic. In many of these cases, probably a majority, there was an hereditary taint or a strong neurotic tendency.

The author quoted Mairet, who thought that it was in those individuals who were predisposed by heredity or other grave causes,—alcoholism, infectious diseases, etc.,—that surgical operations gave rise to insanity. In the constituent elements of an operation which might act on the brain the two most important ones were the anæsthetic and the degree of surgical traumatism with its after-effects, of which disturbed nutrition played a very important part. When the predisposition also was considerable the anæsthetic alone might produce insanity, or it might result even after minor operations. It was, of course, necessary to take into consideration the mental state of the patient prior to the operation, especially in those graver cases where questions of life or death were frequently involved.

E. S. Lewis, of New Orleans, related the case of a woman, 40 years of age, who had been very hysterical, upon whom he had operated for laceration of the perineum. She had manifested no evidences of insanity prior to operative interference, but during her convalescence the hysterical manifestations had increased and had been associated with delusions. Her condition had become so serious that on different occasions she had threatened to commit suicide. She had been transferred to an insane-asylum, and after a thorough examination by the physician in charge an unfavorable prognosis had been given. Investigation of the family history had shown traces of insanity.

In another case, that of a woman 60 years of age, he had removed a very large adherent ovarian tumor, and the operation had been attended with considerable shock. For a few days subsequently the patient had done well, but then she had become perfectly insane. These were the only two cases he vividly remembered, although he had seen cases of temporary insanity after operations, which had passed off in the course of a few months.

W. E. Parker, of New Orleans, had seen two or three cases of insanity in men following surgical operations, but had never been able to trace any history of the disease in the family. The insanity had occurred in alcoholics. Two of the men had been addicted to either cocaine or morphine. In the management of such cases the use of the particular drug to which the patient was addicted should still be continued in very small doses, and

cut off gradually, for the reason that great prostration often followed the sudden interdiction of a habit that had been continued for many years.

R. B. Rhett, of Charleston, had met with three cases of post-operative mental aberration, two of which had occurred in old women after removal of the breast for cancer. The third case had occurred in a young woman who had had puerperal insanity prior to the operation. In two cases the insanity had lasted for three days, in the other for three weeks.

Cartledge said that the question of post-operative insanity led us to discriminate as to the probable etiology in many of the cases. He thought the author of the paper had had it in mind to deal with those cases of post-operative insanity that were functional in character, rather than those in which there was suffering from the mental impression produced by the operation in general. He was quite sure that most of the cases, except those characterized by hereditary tendencies and traits, could be traced to some organic lesions. The history of the case should always be thoroughly investigated. He had encountered what he considered pure post-operative insanity in only two cases.

John D. S. Davis considered the subject of interest from a medico-legal stand-point. No surgeon was absolutely free from such mental complications occurring in his operative work. He had encountered four cases. In a young man there had been no history of insanity, but an analysis of the urine had shown a great many casts and a slight trace of albumin before the operation. Operative interference had been followed by acute mania which had lasted seven days, then disappeared, and the patient had recovered. He expressed a desire that Dr. Wilson would, in closing, touch upon the responsibility of the surgeon in this class of cases.

Joseph Taber Johnson, said that in talking with Dr. Kelly and Dr. Noble he learned that the latter had met with eight cases of insanity following perineal operations. He asked Dr. Wilson to state whether operations upon the perineum were more frequently followed by insanity than others.

Wilson said he had seen a number of cases of various forms of insanity following surgical operations, but did not think the disease occurred more frequently after perineal operations and operations upon the genitalia than after those upon any other part of the body. In reply to Dr. Davis's question, he did not think the physician was any more responsible for the death of a patient from insanity following an operation than he was for death from any other cause following any operation. He had never heard of a suit for malpractice having been brought against a practitioner for the occurrence of mental derangement from a surgical operation.—*New York Medical Journal*, December 26, 1896.

Selections from Reports of Members of the Annual's Staff of Correspondents.

Denmark.

DR. F. LEVISON,
REFERENT FOR DEN DANSK LITTERATUR VEDRÖRENDE: ALMINDELIG MEDICINSK PATHOLOGI OG THERAPI, DERI INDBEFATTET, NERVE- OG SINDSSYGDOMME, PÄDIATRIK, OBSTETRIK, GYNÄKOLOGI, HYGIEINE, DEMOGRAPHI, RETSMEDICIN, PATHOLOGISK, ANATOMI, BAKTERIOLOGI.

Alle medicinske Böger, Disputatser, Monographier, Tidsskrifter, etc., der adkomme i Danmark bedes sendt til

DR. LEVISON,
Norrevoldgade, 13,
Köbenhavn.

Pathology of Empyema.—CH. ULRICH describes a case of empyema caused by ulcus ventriculi perforans. A maid-servant, 35 years of age, who never suffered from cardialgia or vomiting, presented signs of a large effusion in the left pleura. As an explorative puncture had shown the presence of pus, a large amount of purulent fluid was evacuated, after resection of the seventh rib, in the angular line. She recovered, and after a month the secretion from the incision had almost ceased, when suddenly three epileptiform attacks, each continuing for five minutes, set in, when the patient collapsed and died.

At the autopsy a perforating ulcer was found on the anterior wall of the stomach. Between the stomach, the liver, the spleen, and the diaphragm a large abscess had formed, and from it a perforation through the diaphragm had given rise to the empyema. In the brain two abscesses were also found,—one on the left lobus frontalis, another on the right lobus occipitalis.—*Bibliothek for Läger*, p. 367, 1896.

Cervical Ulceration.—RASCH observed several cases of soft ulcers of the uterine neck which did not resemble the ordinary chancre, but consisted of grouped, confluent, yellow, papulous prominences, with a granulated surface. The ulcers healed promptly by applications of iodoform powder, while different other treatment had proved inefficacious.—*Hospitalstidende*, p. 661, 1896.

Treatment of Gout.—F. LEVISON considers that gouty affections are caused by an accumulation of uric acid in the blood, owing to insufficient excretion by the kidneys. Both by autopsies made by himself and by those described in the literature, it is proved that the kidneys of arthritic patients are almost always in a state of granular atrophy. This condition is caused either by hereditary disposition, by lead poisoning, or by continued irritation of a mechanical order, especially by the deposition of crystals of uric acid in the tubuli of the kidneys. By far the greater portion of arthritic patients have formerly suffered from uric-acid gravel, and are only later in life affected with gout. A rational and long-continued treatment of uric-acid gravel, which should not be merely limited to the treatment of the renal colic, but should be continued as long as the urine still deposits sand or even microscopical crystals of uric acid is, therefore, the best prophylactic of gout.

In the treatment of gout none of the new patent medicines, such as piperazine, have been of use, but in fifteen cases, of which the particulars are given, the author has successfully employed the dielectric method introduced by Edison in 1890, and further developed by Labatut, of Grenoble.

In this method the affected articulation or limb is placed in a 2-per-

cent. solution of chloride of lithine, made alkaline by some caustic lithine or carbonate of lithine, while another portion of the body (hand or foot) is placed in a weak solution of common salt. Two electrodes of coal are placed in the two solutions and the anode made to communicate with the solution of lithine and the cathode with the solution of salt. A current of 20 to 25 milliampères is employed for thirty minutes every day. Labatut has proved by ingenious experiments that lithine can thus be carried with the current through the skin into the body, and that it enters by the anode; after a treatment of some days lithine is found in the urine.

Of the 15 patients treated by Levison in this way, 11 sufferers from chronic gouty affections were greatly benefited; the function of the joints in particular was almost always quite restored or much improved, even if the stiffness and pain had existed for years. The author gives particulars of cases in which patients had been for years unable to make use of a knee or a hand, and were able, after a treatment of three to four weeks, to take long walks without any pain, or could use their hands for sewing, writing, or even playing the piano.—*Hospitalstidende*, p. 881, 1896.

Astigmatism.—O. RÉE has published a thesis on the examination of the eye by the aid of a luminous point, especially in the investigation of astigmatism; the author shows by various tables that the luminous point is seen differently by different modifications of astigmatic eyes.

Russia.

DR. J. DRZEWIECKI,

РЕДАКТОР-КОРРЕСПОНДЕНТ

изъ области русской литературы, касающейся: Общей медицины и терапіи, педіатріи, акушерства, гинекологіи, ларингологіи, отологіи, гигіены, демографіи, судебной медицины, гистологіи, бактеріологіи, анатоміи и физіологіи.

Всѣ періодическія, медицинскія изданія, сочиненія, статьи, монографіи и т. д., изданныя на русскомъ языкѣ и касающіяся вышеупомянутыхъ предметовъ должны быть адресованы на имя

ДРА ДРЖЕВЕЦКАГО.

87 Краковское Предмѣстье,

Варшава.

Salts of Potassium in Heart Disease.—KRIVONOGOFF administered nitrate of potassium in single doses of 10 grains (0.67 gramme), six times in twenty-four hours, to patients with heart affections, especially where compensation was defective. The favorable action of this treatment manifested itself as follows: The contractions of the heart were stronger; this was made evident by the strengthened heart-beats and by the increased wave of the pulse and arterial pressure. A frequent pulse became slow under the influence of nitrate of potassium; the daily quantity of urine was markedly increased, which the author ascribes to the increased blood-pressure. Œdema, hydrothorax, ascites, etc., disappeared, and the weight of the body was reduced. One of the first symptoms of the action of the salts of potassium was an evident diminution of the dyspnœa and amelioration of sleep and the general condition. Sometimes the salts had a purgative effect which afterward disappeared of itself. In the fifteen cases observed the author had never seen, even during long-continued use of this remedy, any cumulative action or any secondary unfavorable symptoms.

This would suggest that preference should be given to nitrate of potassium rather than to digitalis or convallaria.—*Inaugural Dissertation*, St. Petersburg, 1896.

The Role of Bed-bugs in the Etiology of Typhus Recurrens.—TIKTIN, considering the fact that, during the epidemic in Odessa, the disease was located mostly in dirty and crowded boarding-houses, full of fleas, lice, and bugs, desired to have some specimens of these parasites sent him. He received only lice, no fleas or bugs having been sent. He was not able to detect spirochetes in the lice. He then made the following experiment: He put some bed-bugs with spirochetes and starved them for several days, after which, with the consent of the patient, put the bugs upon his skin, under a small glass bell, during an attack of relapsing typhus. He did the same with monkeys infected with the disease. When the insects were satiated with blood and fell off, he crushed them between two glass slides, and examined the fresh preparations, after slightly staining them with gentian-violet. The blood of the bugs contained many spirochetes, which retained their form after eighteen hours, but did not move.

The author also allowed some of the starved bugs to suck the blood upon a shaven spot on a monkey (*Cynopithecus æthiops*) infected with the disease, then crushed them, and, having collected the blood from eight bugs, injected it under the skin of a healthy monkey. Sixty-four hours later spirillæ were found in the blood of the latter. The disease lasted about six hours, and before the rising of the temperature to 40° C. (104° F.) the spirillæ disappeared from the blood, after which it fell quickly to 36.3° C. (97.6° F.). The author supposes that, among many other agents, bugs also play a rôle in transferring the disease among men. He explains this as follows: Either bugs not quite satiated with the blood of the patient go to healthy persons and, biting them, introduce into the wounded skin the spirillæ which remained on the wound or in the cavity of the mouth, or the bugs satiated with the blood of the patient are crushed on the skin of a healthy person, who, feeling the creeping insects, scratches the place and inoculates himself with their blood.—*Meditzinskoye Obozrenye*, No. 21, 1896.

Sweden.

DR. F. EKLUND,
Brefväxlande Medarbetare
för den
SVENSK MEDICINSK
LITTERATUR.

Af alla i Sverge utkommande medicinska tidskrifter, bocker, afhandligar, monographier a. s. v. torde ett exemplar benäget öfversändas till

DR. ABRAHAM
FREDRIK EKLUND,
Sibyllegatan, 3 A,
Stockholm.

A Case of Chondritis Costalis Septica.—A case of this affection is reported from the technical clinic of the Hospital of the Seraphim in Stockholm, by ULRIC M. ASPEGREN. The patient, a joiner 27 years of age, noticed, a month previously, a tumor of the size of a nut, which was neither painful nor sensitive on palpation. It was situated on a level with the third right costal cartilage, quite near the sternum, was not movable, but grown to the bone. Vigorous contractions of the great pectoral muscles caused a little pain. The author found abreast of the insertion of the third right costal cartilage and extending in the direction of the

same rib, an oval, roundish tumor, respectively nine and seven centimetres in diameter. Apparently the tumor was adherent to and passed insensibly into the cartilage of the third (possibly even of the fourth) rib, as well as into the right side of the sternum. The surface of the tumor seemed to be pretty smooth, its consistency was hard and somewhat elastic. In the centre it was softer, almost fluctuating. An incision ten centimetres long was made along the third costal cartilage. On cutting the great pectoral muscle its undermost fascicles appeared considerably infiltrated. As the operator endeavored to dissect them free from the tumor, a small cavity was opened from which some ichorous pus ran out. This cavity, which also contained some masses of granulations, was curetted. Thereupon the third costal cartilage was dissected free throughout its entire length. About one centimetre from its sternal border, on the inferior edge of the cartilage, there was an excavation of the size of a pea, filled up with a soft mass. Resection of the costal cartilage from its sternal border as far as 0.5 centimetre into the osseous part of the rib was then performed and recovery followed. The author considers the bacteria in question as belonging to the bacterium coli commune, although it did not produce coagulation of milk nor indol. This case is the first in which the bacterium coli commune has been clinically discovered as engendering suppuration in the osseo-cartilaginous system, although experimentally this result has been produced. —*Hygiea*, vol. lviii, No. 9, pp. 235 to 245.

Concerning the Association Centres.—At the First Northern Congress for Internal Diseases HAROLD HOLM exhibited a table which gave a general synopsis of the microscopical changes observed in sixty-nine brains of insane individuals, representing most of the forms of mental disease. The pathologico-anatomical alterations indicated only partially agree with the views of Flechsig. The places of predilection for the anatomical alterations are the gyrus rectus, the gyrus fornicatus (which does not belong to the association centres of Flechsig), as well as the island of Reil. Here the cortical substance of the brain may be entirely destroyed on both sides without there having been any aphasia or paraphasia observed. Where there are symptoms of aphasia with destruction in the region of the island of Reil, the cause must be looked for in the interruption of tracts which have their course therein, without any connection with the insular cortex. With regard to frequency of destruction of other parts of the brain-cortex, the frontal gyri and the temporal lobe come next in order, while the parietal lobe, the central gyri, and the occipital lobe come last.

The results of these investigations speak manifestly for the opinion that the origin of the psychoses lies in the destruction of the fibres having a transverse course, though the various parts of these may have a greater or lesser importance as to the psychosis, and their degeneration may engender the different forms of mental disease, according to their localization.—*Hygiea*, vol. lviii, No. 9, pp. 303, 304.

On the Serum Diagnosis of Typhoid Fever.—In a communication made to the medical clinic of the Hospital of the Seraphim, in Stockholm, JUNDELL

stated that he had tried the serum diagnosis in thirty-two cases of ileotyphus, with positive results in all of the cases with the exception of one, which was examined on the second day of the disease and then gave a negative result (although positive on the ninth day of the disease). In all the others the reaction followed the author's first experience. Three times he obtained the reaction on the fifth day of the disease. He considers the easily practical serum reaction in ileo typhus as much more trustworthy than all the other and more wearisome procedures for the detection of the bacillus of Eberth.

Judging from the examinations made up to the present time the serum reaction is absolutely pathognomonic, in the author's opinion.—*Hygiea*, vol. lviii, No. 10, pp. 359 to 370.

On the Accidental Blowing Sounds Over the Heart.—At the First Northern Congress for Internal Diseases, in Göthenburg (August 27 to 29, 1896), EDGREN stated that the sounds under consideration have the following characteristics: 1. They are most frequently met with in young persons. 2. Other signs of heart disease must be absent. 3. They have their maximum point at the left limit of the heart and at its apex. On the right they are most commonly observed at the auscultation-point over the aorta. 4. They are most frequently systolic, at times diastolic, but they occupy only a part of the systole or diastole. 5. As a rule, they are soft, yet the blowing sound audible in the second intercostal space at the left sternal border is very often rough. 6. They are very variable; one day they are audible, another day not. They are modified by the position as well as by expiration and inspiration. During expiration they often disappear when the patient is standing and breathes profoundly. 7. Their area of extension is small. They are never audible in the back of the chest.—*Hygiea*, vol. lviii, No. 9, pp. 285, 286.

Kustner's Operation for Uterine Inversion.—W. NETZEL reports the case of a married woman, 31 years old, who had had one abortion and five spontaneous deliveries. As a result of the too-violent measures employed by the midwife for the expulsion of the placenta, violent pains and metrorrhagia were caused, with unconsciousness, fever, and mental aberration. Not only was the entire womb completely inverted, but the neck of the uterus also, save its posterior portion, where a low wall represented the vaginal portion. As repeated, persevering, and very energetic endeavors to re-invert the uterus during profound narcosis were unavailing, the author operated according to the directions of Küstner, the sole difference in his procedure being that the re-inverted uterus was drawn out and down through the excision in the posterior fornix. Recovery followed without the least reaction. This case proves that Küstner's method—at least, under otherwise favorable conditions—gives an especially good result.—*Hygiea*, vol. lviii, No. 5, pp. 451 to 455.

Clinical Notes and Therapeutic Suggestions.

The Diagnosis and Treatment of Lumbago.—F. H. Edgeworth, of Bristol, subdivides this disorder into three classes of cases,—those of rheumatic myalgia, rheumatic neuritis, and renal pain associated with hyperacidity of the urine,—and argues that, if the differential diagnosis be made, it is found that treatment is thereby much simplified and restoration to health more readily brought about.

The patients of the third class complain of a dull-aching pain in the lumbar region on both sides. The pain, which is constant and not made worse by movement, is not confined to the lumbar region; it extends forward around the trunk into the groins, and occasionally into the testes. The patient generally complains of scalding during micturition, and the urine, which is quite clear on first being passed, is very acid in reaction, and on cooling deposits abundant brick-red urates. The muscles are not tender on palpation or percussion, but there is often a zone of hyperæsthesia of the skin, best tested by prodding with the head of a pin, extending around from the lumbar region to the lower part of the trunk for a space of about three inches above Poupart's ligament and the pubes. The pain is evidently associated with and probably dependent on an hyperacidity of the urine; just as scalding occurs during micturition from irritation of the urethra, so the bilateral lumbar and abdominal pains result from irritation of the renal pelves; and the hyperæsthesia of the skin is a "referred" phenomenon exactly like that which happens in cases of renal calculus or gravel. The reflex retraction of the testis sometimes seen in renal calculus is not present in these cases, probably because the irritation is not sufficiently great; and the phenomena are always bilateral, though they may be more marked on one side than the other. Treatment is simple and most successful, consisting in the administration of large doses of some indirect antacid, such as potassium citrate.

Lumbago due to rheumatic myalgia is characterized by pain in the lumbar region only, generally on both sides, though occasionally on one side only. It very rarely extends to the muscles of the anterior abdominal wall. When the patient is at rest or lying down, there is no pain, which occurs only during movement. An easy way of satisfying one's self as to this is to ask the patient to stoop down and touch his toes; the action is performed carefully and stiffly, with evident discomfort, often much greater while resuming the upright position than in stooping. The muscles are not, in the least, tender on palpation, and there is no hyperæsthesia of the skin either over the affected muscles or on the front wall of the abdomen. The urine is normal, and there is no scalding during micturition.

Lumbago from rheumatic neuritis resembles rheumatic myalgia in many of its features, but differs in three particulars. The pain, although rendered worse by movement, persists in a less degree during rest. Further, there is some tenderness on palpation, particularly over the spots where the nerves run through fasciæ. And, lastly, pain is often felt along the course of the sciatic nerve or nerves as well as in the lumbar region. If a case be seen early there is rarely any evidence of impairment in the conductivity of the nerves.

The treatment of lumbago due to rheumatic myalgia or neuritis consists in the administration of salicylates until toxic effects are produced, and in the use of counter-irritation, the best application for which is capsicum, which was recommended many years ago, but has been but little used. The ordinary B. P. tincture is diluted with water in the proportion of 1 to 5, and applied on lint, covered by oiled silk or other protective to prevent evaporation. The effects of this are extraordinary and quite inexplicable,—a patient, who a quarter of an hour previously could not make the least movement by reason of the pain, is able to move freely and painlessly. This result is, it is true, somewhat transitory; it wears off in an hour or so, but can be re-induced by a fresh application. One usually directs this to be done for half an hour four or five times a day.

I have found that the salicylates act more speedily in cases of rheumatic neuritis than of rheumatic myalgia; in the former the pain usually ceases as soon as salicylism is produced, while this has to be kept up for some little time in cases of myalgia before its cessation.

These cases of rheumatic neuritis and myalgia have some etiological relationships with ordinary rheumatic arthritis. It is easy to divide cases of "rheumatism" into two great groups, in the first of which are such affections as endocarditis, pericarditis, nodules, chorea, and arthritis, and in the second rheumatic myalgia and neuritis. Many authors assign them to different causes. And certainly such a division seems somewhat justifiable from a clinical point of view; as a rule, a patient suffers from one or more of the diseases of one group only. But such a division is a little arbitrary; if, for instance, a large number of cases of lumbago be taken, and those in which the pain is renal in origin be first subtracted, a large percentage of the remainder will be found to have suffered at one time or another from "major" rheumatic attacks.

The relationship, then, of these "minor" rheumatic affections is, perhaps, a good deal nearer that of ordinary rheumatism than is generally supposed, and affords an explanation of the good effects produced by the administration of salicylates.—*British Medico-Chirurgical Journal*, December, 1896.

A Study of the Biology of the Gonococcus (Neisser), with Contributions to the Technique.—In a paper on the above subject, based on the morphological and biological examination of exudates in cases of chronic urethritis, Henry Heiman, of New York, submits the following propositions as a summary of his experiments:—

1. He believes that, in the examination of secretions from urethritis, the employment of the centrifuge not only is the most convenient method, but also gives the best and most reliable results.

2. The medium employed by Hammer, consisting of albuminous urine plus glycerin agar, does not give so good results as chest-serum agar, as far as his experiments have shown.

3. Fractional sterilization of serum should be continued longer than six days, and, after an interval of two or three days, it should be sterilized again on three consecutive days.

4. He recommends fermentation-broth plus liquid chest-serum, Dunham's peptone solution plus liquid chest-serum, and nutrient broth plus liquid chest-serum as liquid media for the gonococcus.

5. In the fermentation-broth plus liquid chest-serum he was able to cultivate the gonococcus after fifty-one days, at which time he discontinued his experiments.

6. Gonorrhœal pus submitted to the centrifuge and kept moist at room-temperature contained living gonococci after forty-eight hours, as proven by culture.

7. In gonorrhœal pus which had been smeared on linen the gonococcus was demonstrated morphologically by Gram's method after forty-nine days in cover-glass, at which time his experiments were discontinued.

8. The gonococcus was demonstrated after twenty-nine days in cover-glass preparation made from pus which had been dried on glass.

9. In chronic urethritis culture-media alone are to be recommended for the detection of the gonococcus.

10. In 34 examinations of gonorrhœal threads with cover-glass alone, by Gram's method, 7 cases showed the gonococcus.

11. Of 61 cases of gonorrhœal threads examined with cover-glass and culture-media 13 gave positive results with cover-glass and 14 with culture-media.

12. For the collection of the secretions and threads for planting at least two specimens of urine must be obtained: first, that which washes out the urethra; second, that which contains threads of the posterior urethra and secretion expressed from the prostate.

13. He believes that a urethra may contain gonococci which lie dormant and may be innocuous in that person for years, but which may at any time excite an acute gonorrhœa in another person.—*New York Medical Record*, December 19, 1896.

A Plea for a Less Restricted Diet in Typhoid Fever.—In a clinical lecture on this subject A. G. Barrs, of Leeds, England, expressed the opinion that there is, in the treatment of typhoid fever, too great a tendency to treat the intestinal lesion at the expense of the individual, or, if not that, to make the temperature-chart the sole arbiter of our practice.

We should, he thinks, enforce no further departure from the normal diet of health than the disease itself enforces by the inevitable loss of appetite and impaired digestion of the pyrexial state. When a patient suffering from typhoid fever expresses a genuine desire for solid food, and his expressed desire is confirmed by his physical condition, he gives him such food as he can take, especially meat. He does not suggest, much less insist, that a patient with a dry, baked mouth, semidelirious, and probably loathing even milk, should be fed upon beefsteaks. Such a proceeding would, in his opinion, be as ridiculous and unjustifiable as to insist that a man who, with a clear mind and a full appreciation of his condition, says he is craving for solid food should be refused it.

Beyond the fact that it involves the least departure from the normal line of health, the author urges that it is a method which is likely to modify

favorably the death-rate of typhoid fever, to shorten convalescence, to diminish the risks of complications and sequelæ, and generally to make typhoid fever a less formidable and more manageable disease than it is under our present standard methods of treatment.

Perforation is, to his mind, by far the most important point with which he has to deal with, and he concedes that if solid food can, with reasonable certainty, be blamed for a single case of perforation, it would be quite unjustifiable to give it. Perforation, however, is not a common accident. Under orthodox methods of dieting it occurs in from 2 to 3 per cent. of all cases. For instance, in the hospitals under the management of the Metropolitan Asylums Board in 1894, in 534 cases 96 died, and, of these, 17 were cases of perforation; so that it is not a common cause of death. It appears to him that perforation may come about in one of two or three ways:—

1. By a direct extension of the typhoid process to and through the peritoneal coat of the intestine.

2. By undue stretching of the intestine when the peritoneal coat has been exposed by the separation of the slough. This is usually brought about by flatulent distension (we all very properly regard a distended abdomen as dangerous).

3. By violent peristalsis, such as that induced by purgatives or foreign bodies in an intestine in which the peritoneum only forms the floor of the ulcer.

In his opinion the majority of cases are due to the direct effects of the typhoid process, and are not accidental in the strict sense of the term, and are unavoidable by any form of dieting unless it be by liberal feeding in order to maintain the resisting-powers of the individual at the highest level possible under the circumstances. He thinks too much has been made of ulceration in typhoid fever. Ulceration, in the sense of a spreading molecular destruction of parts, there is very little save that which is necessary for the detachment of the slough, and, when the sloughing process has reached the peritoneal coat, the simple and natural process of separation will cause perforation. Tympanites and violent peristalsis are not more likely to occur under the method of feeding which he advocates than under strictly fluid diet. He believes that whatever food we put into the stomach, if it is digestible and the stomach is digesting, it will reach the seat of the typhoid lesion in the same state of fluidity, whether it be milk, beefsteak, bananas, or what not. If the stomach is not digesting, the patient will not be hungry, and, consequently, according to his rule, solid food will not be given to him. As is well known, milk is, at a certain stage of its digestion, just as much solid food as meat is, and sometimes it passes into the intestine and on to the typhoid lesion in its solid state; so that milk is not quite devoid of this supposed danger. He believes, also, that it will be generally admitted that a diet consisting of a normal proportion of wholesome solid food (meat and bread) is much less likely to give rise to an excess of intestinal gas than a diet consisting exclusively of fluids. Finally, he suggests that solid food alone cannot be a cause of perforation, or perforation would

not occur when the diet is so strictly regulated as it is.—*British Medical Journal*, January 16, 1897.

Puerperal Septicæmia and Antistreptococcic Serum.—An editorial writer alludes to the fact that the results obtained hitherto in the treatment of septicæmia by means of the antitoxic serum of Marmorek have been very much less marked than those which have followed the antitoxin of diphtheria, while its use in the treatment of puerperal fever has not been attended with brilliant success. He calls attention to the fact, however, that the serum has in some, and probably in many, instances been injected after the disease had become well-established in the system of the patient. In view of the very rapid absorption of the septic poison in these cases, and of the large uterine surface available for this purpose, the significance of such delay should not be overlooked. It is probable, too, that the disease under treatment has not always been the effect of the streptococcus alone, but primarily sapræmic and a consequence of putrefaction in retained coagula. It is, however, encouraging to note that, even in the treatment of puerperal cases, a distinct amelioration of symptoms after injection has been noticed by some French observers (Patru, Maillart, Ribemont, etc.). Boucheron speaks highly of his results in the treatment of purulent dacryocystitis by this method, injections of 5 cubic centimetres, repeated at intervals of a few days, having a marked effect even in chronic cases of this disease. He employs the serum also as a preventive of possible suppuration after cataract operations. As yet it would seem that the antitoxic power of this remedy is not great, and it may be that the secret of success in acute cases lies not only in the promptitude of its employment, but in the frequency of its repetition. The most that can be said so far is that past experience, though indecisive, is encouraging rather than otherwise, and lends some color to the hope that, with a purer and more powerful serum, better results may be expected. Practitioners who have had to combat the horrors of puerperal septicæmia are not likely to undervalue even such hope in this connection.—*The Lancet*, January 9, 1897.

Treatment of Warty Growths of the Genitals.—William S. Gottheil, in a paper on epithelioma of the penis, read before the Society for Medical Progress, November 14, 1896, concludes as follows:—

1. Warty growths of the genitals, more especially in the male, are always to be suspected of malignancy, no matter how innocent they seem.

2. They should either be left entirely alone or be thoroughly removed by knife or cautery.

3. Imperfect attempts at destruction, as with nitrate of silver, carbolic acid, etc., are especially to be avoided, there being many cases recorded in which they have apparently stimulated a benign growth into malignant action.—*International Journal of Surgery*, January, 1897.

Treatment of Wandering Spleen.—In a paper on this subject read before the Medical Society of London, J. Bland Sutton states that splenectomy for wandering spleen is not only justifiable, but it is a highly success-

ful operation, the rate of recovery being equal to that of ovariotomy in skilled hands. The author succeeded in collecting a score of cases performed within the last twenty years without a death. It has, of course, occurred to many that it would be desirable if it were possible to secure the spleen in the left hypochondrium by means similar to those adopted for movable kidney. Pouwer has endeavored to carry this out in two instances, but his results show clearly that the patients ran much greater risks and had a longer confinement to bed than if he had removed their spleens.

Rydygier has conceived and carried out, apparently with success, an ingenious and simple method which seems full of promise. The great difference between splenectomy and splenopexy is that, in the former case, the individual is deprived of an organ, and, although we do not know with any degree of precision what its real use is, we are, nevertheless, bound to display caution in dealing with it.

So far as his own cases go, he has failed to find any evil manifestations. He regards the spleen as a highly-developed and specialized lymph-gland, and at present there seems to be no reason for hesitating to remove it when "wandering" and troublesome, in so far as remote consequences are concerned, than in excising a crowd of enlarged glandulæ concatenatæ.

It is a fact that many, if not all, individuals with a wandering spleen are very thin and often gaunt, and, as far as his observations go, they retain this character when spleenless.—*British Medical Journal*, January 16, 1897.

Improvement in Diphtheria Antitoxin Serum.—Behring announces, in the *Fortschritte der Medicin*, that he has succeeded in improving the diphtheria serum so that any obnoxious influence will henceforth be entirely avoided. The undesirable symptoms sometimes observed, such as exanthems, swelling of the joints, albuminuria, etc., are, in his opinion, due partly to the diphtheric process itself and partly to accessory products which are present in the serum, pure antitoxin being a definite substance which only acts against the virus of diphtheria and otherwise has no influence on the organism. Behring has not been able either to remove these products from the serum or to prevent their formation; but the strength of the serum, reckoned in antitoxin units, has been increased so much that only a small quantity is required, and the unpleasant symptoms referred to are not now produced. This extra-potent serum is sold by the Hoechst factory as a dry preparation, which, before being administered, must be dissolved in water. It is very soluble, and may be kept for any length of time. It does not contain carbolic acid or any other antiseptic compound, but is simply preserved in hermetically-closed bottles. The strength of 1 gramme is 5000 normal units. Behring points out that the new antitoxin is especially valuable for immunizing purposes; the immunity obtained by its administration lasts about four weeks. He expresses the hope that the small number of medical men who are still opposed to the antitoxin treatment will now be persuaded of its efficacy and safety.—*The Lancet*, January 16, 1897.

Traumatic Hæmarthrosis of the Knee-joint.—John O'Connor, of Buenos Ayres, recommends that the following steps be taken in the treatment of this class of cases.

1. In cases of effusion into the knee-joint an aspirating needle should be introduced in order to arrive at a correct diagnosis.

2. If blood is present an incision should immediately be made into the synovial pouch, and every particle of blood and clot removed; in case of fracture into the joint, the fragments should be examined, and, if necessary, reduced and fixed.

3. A gauze drain should be inserted for a few days in order to make certain that no further re-accumulation shall take place; and, when it is evident that there is no further danger of this occurring, the external wound should be closed by "waiting" sutures.

4. When union is sufficiently firm active movement should be encouraged; and when this can be painlessly executed, then, and then only, is massage a most useful adjunct in restoring the muscles to their normal condition.—*Glasgow Medical Journal*, December, 1896.

Death Following Vaccination.—An editorial remarks that again and again inquiry has shown that the real cause of the death of an infant has not the remotest connection with a vaccination which has been performed at a date more or less approximate to the fatal illness. On the other hand, it is well to recognize that injuries are caused by vaccination, and that this operation, trivial as it may appear, should never be undertaken in a weakly subject or without every safeguard. A case was recently investigated by a coroner's jury at Southampton, where a child, 5 months of age, died on December 21st, after a brief illness, from what the medical evidence showed was septic poisoning. The infant had been vaccinated on December 9th, having six weeks previously suffered from bronchitis. There was no inflammation of the arm, but the site of vaccination became discolored, and the medical witness who made the post-mortem examination considered that this was the cause of the septicæmia. The editorial writer argues that there is very little evidence to support this theory, especially as there was proof of exposure to inhalation of sewer-air.—*The Lancet*, January 9, 1897.

The X-rays in the Detection of Renal and Vesical Calculi.—A. P. Laurie and John T. Leon, of London, conducted a series of experiments on museum specimens with a view to determining how far different calculi were opaque to the x-rays and comparing their opacity with flesh and bone. The result showed conclusively that calculi composed of oxalate or phosphate of lime were more opaque than bone, uric-acid calculi of almost the same opacity, and gall-stones very slightly more opaque than flesh. Mr. Henry Morris substantially confirmed these results, which seem to show that there should be no serious difficulty in photographing stone in the kidney or bladder.

After some inconclusive experiments on living subjects they inserted a uric-acid calculus of about five-eighth inch in diameter into the kidney of the cadaver of a man about 50 years of age. This was done with as little

disturbance of surrounding parts as possible. He used, to photograph the stone, a " focus " tube and an induction coil giving a six-inch spark with four storage cells connected to the primary circuit, and took the photograph on a " Lightning Cadett " plate. After an exposure of thirteen minutes with the body lying on its back the plate was removed and developed and showed a faint, but distinct, image of the stone, though the spine itself was very faintly indicated.

The next experiment on a living subject gave a negative result, which was subsequently confirmed by operation. The next case was that of a boy, aged 8 years, who came to the out-patient department of St. Mary's Hospital in November, 1896, with the symptoms of vesical calculus. On this occasion he used the same induction coil and the same number of cells and an xxxxx Faget plate, the exposure to the rays being seven minutes. The untouched negative showed that the calculus was apparently a little over an inch in diameter. A few days later lithotrity was performed by Mr. Silcock, a No. 9 lithotrite being used and the detritus weighing 98 grains. It was composed principally of uric acid and was oval in shape. Within a few days of the above case he had another, that of a boy, aged about 15 years, in whom a skiagraph showed the presence of a calculus in the bladder quite distinctly.—*The Lancet*, January 16, 1897.

Monographs Received.

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Diagnosis of Tumors of the Brain. By J. T. Eskridge, M.D., Denver, Col. Reprint. 1896.

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The Modern Treatment of Diphtheria in Private Practice. By W. A. Walker, M.D., New York. Reprint. 1896.

Thirty-fifth Annual Report of the Board of Managers of the Woman's Hospital of Philadelphia. 1896.

Essai sur l'etat actuel de la thérapeutique par les produits physiologiques en particulier par la spermine. By W. K. Pantchênko, St. Petersburg. Reprint. 1896.

On the Investigation for Clinical Purposes of Albumen and Some of the Allied Substances which Occur in the Urine of Disease. By Alexander G. R. Foulerton, F.R.C.S., in charge of Biological Chemistry Laboratory, British Institute of Preventive Medicine. Reprint. 1896.

Quinsy; the Differential Diagnosis and Treatment. By J. Homer Coulter, A.M., M.D., Ph.D., Chicago, Ill. Reprint. 1896.

Remarks on the Causes of Glaucoma. By Leartus Connor, A.M., M.D., Detroit, Mich. Reprint. 1896.

Etudes cliniques sur le chimisme respiratoire. Second Edition. By Albert Robin, de l'Académie de Médecine, Médecin de la Pitié, and Maurice Binet, Chef de laboratoire à l'hôpital de la Pitié, Médecin à Saint-Honoré, Paris. Reprint. 1896.

The Effect of Permanganate of Potassium in Opium Poisoning. By Leedom Sharp, LL.B., M.D. Reprint. 1895.

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The Diagnostic Value of Blood Examinations. By George P. Sprague, M.D., Danvers, Mass., Assistant Physician, Danvers Lunatic Hospital. Reprint. 1896.

Observations on Some Criticisms of Serum Therapy. The Action of Serum on the Blood. The Results of Serum Therapy in Tuberculosis. By Paul Paquin, M.D. Reprints. 1896.

Tubercle Antitoxin, or Antituberculin. By Paul Paquin, M.D., St. Louis, Mo. Reprint. 1896.

The Experience of Several Physicians with Serotherapy in Tuberculosis. By Paul Paquin, M.D., St. Louis, Mo. Reprint. 1896.

Injections de calomel dans le traitement de la syphilis. By Louis Jullien, M.D., Professeur agrégé de la Faculté de médecine, chirurgien de St. Lazare, sécrétaire général de la Société de médecine de Paris, Paris. Reprint. 1896.

The Development of the Test-card. By Frederick K. Smith, Cleveland, O. Reprint. 1896.

Adenoid Vegetations in the Vault of the Pharynx. By Seth Scott Bishop, B.S., M.D., Chicago., Professor of Otology in the Chicago Post-Graduate Medical School and Hospital; Professor of Diseases of the Nose, Throat, and Ear in the Illinois Medical College, etc. 1896. Acute Suppurative Inflammation of the Middle Ear; Acute Suppurative Mastoiditis; Abscess of the Neck; Operation. By Seth Scott Bishop, M.D., D.C.L., Chicago. Reprint. 1896.

A Clinical Study of Twenty-one Thousand Cases of Diseases of the Ear, Nose, and Throat. By Seth Scott Bishop, B.S., M.D., LL.D., Chicago. Reprint. 1896.

The Doctorate Address Delivered at the Commencement of the Illinois Medical College. By Seth Scott Bishop, M.D., LL.D., Chicago. Reprint. 1896.

Solutions Dobell. By Edwin Pynchon, M.D., Chicago. 1896.

Anterior Soft Hypertrophies of the Nasal Septum. By Edwin Pynchon, M.D., Chicago. Reprint. 1896.

Cleft Hand: A Report of a Case Successfully Treated by the Use of Periosteal Flaps. By Charles N. Dowd, M.D., New York. Reprint. 1896.

Color-blindness and Eyesight in the Mercantile Marine. A Criticism of the New Rules of the Board of Trade. By Thomas H. Bickerton. Reprint. 1896.

A Case of Unusual Laryngeal Growth. By J. W. Gleitsmann, M.D., New York. Reprint. 1896.

Diseases of the Accessory Sinuses of the Nose, with Demonstration of Specimens, Drawings, and Instruments. By J. W. Gleitsmann, M.D., New York. Reprint. 1896.

Stricture of the Œsophagus. By F. E. Bunts, M.D. Read before the Cleveland Medical Society October 23, 1896.

Extra-uterine Pregnancy occurring Twice in the Same Patient, with General Consideration of the Subject of Ectopic Gestation. By Lester E. Frankenthal, M.D., Chicago. Reprint. 1896.

The Want of College Instruction in Electrotherapeutics. By Robert Newman, M.D., New York. Reprint. 1896.

Sparteine Sulphate in Surgical Anæsthesia. By Gilbert Geoffrey Cottam, M.D., Rock Rapids, Iowa. Reprint. 1896.

The Treatment of Delirium Tremens by Chloride of Ammonium. By Gilbert G. Cottam, M.D., Rock Rapids, Iowa. Reprint. 1896.

Rheumatismus Neonatorum. By R. Abrahams, M.D., District Physician to the Mount Sinai Hospital, New York. Reprint. 1896.

Pasteur Monument.

It has been decided to erect a monument to the memory of M. Pasteur in one of the squares of Paris. Statues or busts will also, no doubt, be located at his birth-place and in other cities. The Paris committee has, however, wisely determined that the statue obtained through international effort shall be located at Paris, where it will be seen by the greatest number of his countrymen and also by the greatest number of his admirers from other lands. The Paris committee has kindly extended the opportunity to the people of the United States to assist in this tribute of appreciation and love, and has authorized the organization of the Pasteur Monument Committee of the United States. The gentlemen named below have gladly accepted the privilege of organizing the subscription and of receiving and transmitting the funds which are raised :—

Dr. D. E. Salmon, Chairman, Chief of the Bureau of Animal Industry; Dr. E. A. de Schweinitz, Secretary, President of and representing the Chemical Society of Washington, Chief Chemist Biochemic Laboratory; Dr. G. Brown Goode (deceased), Assistant Secretary of the Smithsonian Institution; Dr. George M. Sternberg, Treasurer, Surgeon-General U. S. Army; Dr. J. Rufus Tryon, Surgeon-General U. S. Navy; Dr. Walter Wyman, Surgeon-General U. S. M.-H. S.; Prof. S. F. Emmons, U. S. Geological Survey, representing the Geological Society; Prof. Lester F. Ward, President of and representing the Anthropological Society of Washington; Dr. William B. French, representing the Medical Society of the District of Columbia; Hon. Gardiner G. Hubbard, President of and representing the National Geographical Society; Mr. C. L. Marlatt, Assistant Entomologist U. S. Department of Agriculture, representing the Entomological Society; Dr. Ch. Wardell Stiles, Zoologist U. S. Bureau of Animal Industry, representing the Biological Society of Washington.

The sum subscribed should be forwarded by money-order, check, or draft, made payable to "Treasurer Pasteur Monument Committee," and addressed to Dr. George M. Sternberg, Surgeon-General U. S. Army, Washington, D. C.

Up to January 15, 1897, the Paris Committee had received $50,000.

☞ ***Any journals, exchanges, reprints, monographs, or books not sent directly to the editorial office, 28 rue de Madrid, Paris, will not receive attention either in the "Annual" or the "Universal Medical Journal."***

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OF THE

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES,

Issue of 1896.

CHARLES E. SAJOUS, M.D., Editor-in-Chief,

28 RUE DE MADRID, PARIS, FRANCE.

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"THE INCREASE OF THE NATURAL CAPACITY FOR RESISTANCE BY THE PRODUCTION OF HYPERLEUCOCYTOSIS."

From a paper published in the *Berliner klinische Wochenschrift*, by Dr. Martin Hahn, of the Hygienic Institute of the University of Munich, we extract the following:—

"The fact that leucocytes, where they occur in increased number, impart to the respective medium a greater bactericidal energy, suggests the thought that we may possibly augment by artificial process the natural resistance of the human organism, which, in the main, is identical with the bactericidal energy of the blood.

"Unambiguous results were obtained when the experiments on dogs were begun. They were given subcutaneous injections of remedies stimulating leucocytosis. For this purpose we commonly employ albuminoids, such as albumose or nuclein, the latter in the form of a yeast-nuclein solution, placed at our disposal by the firm of Parke, Davis & Co. We likewise obtained good service from a nucleinic acid, which was donated by the same firm. Since large quantities of such preparations can be administered to the dog, it is very easy to double the original number of the leucocytes in a short time. This is usually accompanied with a rise in temperature, the latter varying according to the remedy used.

"The defibrinated blood, obtained in the stage of hyperleucocytosis, exerted a decidedly more energetic bactericidal effect than the normal blood of the same animal. A favorable action is to be expected from hyperleucocytosis only in those cases where the bacteria do not remain localized and cause mischief by their toxins, but rather where they really pass into the circulation.

"In view of the results thus far obtained we may say, at least, it is highly probable that the bactericidal potency of the human blood depends substantially on the number of leucocytes, and that it will be possible to augment the natural resisting power of the human subject through artificial hyperleucocytosis. Accordingly, in these infectious processes due to the presence of bacteria in the blood, we have still left to us a field for immunization through attenuated cultures, and for cure through elevation of the natural powers of resistance. This cure is, prospectively, to be achieved through the artificial production of hyperleucocytosis."

NOTES ON THE TREATMENT OF FÆCAL FISTULÆ.

In a paper read before the New York State Medical Association Dr. by Frederick Holme Wiggin, in describing the technique employed, he laid much stress upon the thorough disinfection of the parts, including the interior of the bowel, with hydrozone, the closing of the intestinal opening, when possible, before the breaking up of the peritoneal adhesions, and the opening of the general cavity, the removal of any existing obstruction to the fæcal current, the disinfection of the bowel-surface with a solution of hydrozone, before and after the placing of the sutures, the control of oozing from the cicatricial tissue by the same means and the closure by a single row of silkworm-gut sutures without drainage of the abdominal wound after the washing of the peritoneal cavity with saline solution, some of which is allowed to remain.—*Medical Record.*

attractive appearance. As the subject is an important one, the book will, doubtless, have a large sale.—MODERN MEDICINE PUBLISHING COMPANY, Battle Creek, Mich.

Luxurious Ocean Travel.—Intending Southern tourists will be interested in learning of the most modern improvements upon the steamers of the Savannah Line. The boats have been newly provided with sanitary arrangements equal to those of the best hotels in the world. The staterooms have been recarpeted and refurnished in the most elegant style. The electric current is kept up all night, which will be an immense convenience to travelers, especially in cases of sickness. The steamers are being fitted up with the latest and most improved propeller-wheels which are expected to add greatly to their speed and steadiness. Another device which will be appreciated is the bathroom. One of the best staterooms, ten by seven feet, has been torn out and turned into a bathroom, the walls of which are lined with zinc to the height of five feet. The floor is made of cement, and the room is fitted up with a large ring-spray bath. The bather stands on the cement, pulls a string, and a fine spray of sea-water, in the shape of a shower, falls upon him. A slight pitch is given to the floor grade, and the water is immediately drained off, which gives the bath the advantage of being always clean and ready for use.

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THE INFLUENCE OF BEER ON DIGESTION

This paper, "The Influence of Beer on Digestion," by Hobart A. Hare, M.D., in the *Medical News*, is the result of independent and unbiased research by a man of unquestioned ability, whose object was merely to aid the general practitioner in selecting wisely a tonic beverage when he judged one necessary. The experiments performed by him are sufficiently well described to enable any one familiar with that kind of work to repeat them, and their exactness is such as to inspire full confidence in their value. Our favorite brand of beer headed the list of the recommended products of the most prominent breweries of the country. This was no surprise, since we spare neither time, money, nor skill to produce *the best*. Our

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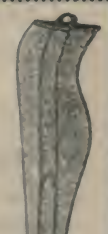

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GERMANY.

MEDICAL SOCIETY OF BERLIN.

Mechanical Intra-uterine Treatment.—SIMONS, who discussed this subject at the meeting of February 3d, includes under this heading the treatment by means of the sound and by uterine crayons, merely establishing a difference with regard to the greater action of the crayon. While assisting at Czempin's polyclinic Simons had occasion to apply the mechanical treatment to three groups of uterine maladies : (1) arrested evolution ; (2) atrophy ; (3) anteflexion, particularly of the neck. With regard to the first two groups, Simons is of the opinion that an organ as muscular as the uterus should, when it has become flabby, torpid, or atrophied, be restored to its original firmness by excitation by means of a foreign body. A veritable massage is to be exerted upon the uterus by means of the sound or of the crayon. On the other hand, the pains irradiating toward the sacrum and the thighs, as well as the nervous depression of the patient, should be combated. Arrested evolution of the uterus, which is so frequent in chlorotic subjects,—the cases in which the uterus has remained infantile,—come under this head. These conditions are incurable, but, when the uterus is not too small, treatment with the sound soothes the pain and the nervous troubles. The cases in which the uterus is completely developed at puberty, but remains comparatively small (aplastic uterus), may also be treated in this way. Amenorrhœa and dysmenorrhœa are favorably influenced, and the ovaries often attain their normal development. The sound is to be introduced 3 or 4 times during the week preceding menstruation. The uterus is drawn down with forceps, and after the introduction of the sound slight blows are given with the latter instrument.

Acute and subacute inflammations are counter-indications, but not the chronic forms of inflammation. The crayon should be 2 centimetres shorter than the uterine cavity, to prevent wounding the walls, but it must also not be too short, else it might be retained within the uterus. It may be left in place, even during menstruation, without the slightest danger, and is retained in position by a pessary which has been suggested by Czempin. The crayon is only to be used in women, never for young girls. It has a very favorable action, even when the trouble is considerable, in cases of pronounced anteflexion of the uterus and of the "tapiroid" neck.

VIRCHOW desired to correct the nomenclature adopted by Simons. The "tapiroid" neck has nothing to do with flexion of the uterus. It is rather a question of a polypoid neoformation of the internal wall of the uterus, which projects from the cavity of the uterus on one side and is covered by the mucous membrane. It is a form of ectropion.

LANDAU called attention to the fact that gynæcologists have never ceased to use the sound in these and other appropriate cases, and that this instrument has given very good results in sterility. As for the generalized use of the crayon, even in chronic inflammations, he finds that the method is rather unscientific, and has never noticed any advantage from its use in atrophy of the uterus. On the contrary, the uterus grew larger, but at the same time there occurred various forms of perimetritis, parametritis, abscesses, and pyosalpingitis, and in some cases death resulted. Landau therefore considers it his duty to caution against the extensive use of intra-uterine treatment.

CZEMPIN affirmed that the careful use of the sound or the crayon has never given rise to bad results in well-selected cases. In his opinion, chronic inflammations counter-indicate the use of this method. He finds the crayon very useful in dysmenorrhœa, when the uterus is not developed.

FALK questions how, since Simons does not admit that chronic inflammations are counter-indications, the crayons are to be kept aseptic for months in the uterine cavity.

GOTTSCHALK does not make use of the crayon in atrophic conditions, but employs the electrolytic sound. He considers the crayon left in place during menstruation as very dangerous. In atrophy during lactation the condition is not a morbid one, but is merely physiological and disappears after nursing ceases.

SCHOENHELMER does not believe that the utility of Simons's treatment has been demonstrated. The disappearance of the troubles is most frequently due to suggestion, which can be exerted by less dangerous means.

SIMONS affirmed that the dangers of the mechanical treatment only existed before the antiseptic epoch, and stated that he had never seen a case of peri- or para- metritis following the use of his method.

Two Cases of Cholesteatoma of the Encephalon.—BENDA believes that the production of these tumors is of but little practical importance. They develop very slowly, and the symptoms are quite undetermined, and do not, in consequence, furnish any indications for the diagnosis.

In the two cases observed, the first symptoms noted date back fif-

teen or twenty years. Our knowledge of the affection is derived from a work published by Virchow in 1855, which probably referred to an epidermoid formation. This opinion has been frequently attacked, but has been confirmed by the researches of Benda, made according to the most recent methods. All the layers of the epidermis are present. The mode of development of the cholesteatoma, according to Virchow, bears a certain resemblance to that of the chancroid; its extension occurs through nodules of cells, which fact is confirmed by Benda's preparations. The starting-point of these tumors, in the opinion of a number of authors, consists of a metaplasia of the connective tissue. Benda supposes that this origin is attributed to the ventricular epithelium.

Diseases of the Bones in Workers on Mother-of-pearl.—Lewy presented a patient suffering from a very painful swelling of the lower half of the left humerus. The disease disappeared spontaneously, several days after the man stopped working. Gussenbauer thought that this affection was due to the mother-of-pearl dust inhaled.

GREAT BRITAIN.

Liverpool Medical Institution.

Serum Diagnosis of Typhoid Fever.—Delépine, of Manchester, emphasized the importance of using fresh cultures of the bacillus typhosus; he had noticed that old cultivations had of themselves a tendency to "clumping." To obtain such cultures the bacillus was grown on solid medium, and fluid cultures were made from day to day as required. It was important to avoid the slightest contamination; and he considered a magnifying-power of 300 diameters sufficient to observe the reaction.

H. E. Durham, of London, pointed out that experimentally the action of sera was not truly specific. In view of the positive reaction of bacillus enteritidis (Gärtner) with typhoid fever, it was possible that fallacious diagnosis may be arrived at in clinical cases. The action of serum of a typhoid patient in 5 per cent. dilution on B. enteritidis (Gärtner) was demonstrated. Blachstein's "artificial cholera serum"—chrysoidin—was also demonstrated in its action on cholera and several other vibrios.

Grunbaum emphasized the importance of dilution of the serum and recommended that it should be accurate. On account of the action of normal sera and those of other diseases, a time-limit is also necessary. He had also observed similar effects to those of the Canadian observers from the variability of virulence, but proper dilution obviated any confusion. The action of typhoid serum or other micro-organisms was interesting, but did not affect the diagnostic value. That the reaction should be present from the third day of the disease was in accordance with experiments on animals whose blood first showed an agglutinative action generally about the third day after the first inoculation. He had not come across any case of enteric fever in which the reaction was not present at some time. The method did not depend on the motility of the pathogenic organism, as was

shown by the agglutination of a diplococcus from a scarlet-fever case by serum from another scarlet-fever patient.

N. E. Roberts showed a hanging-drop specimen of typhoid-bacilli culture to which had been added the serum of a typhus patient four hours previously (dilution, 1 in 20). The bacilli were motile and showed no "clumping." In contrast with serum from an enteric case, the bacilli ceased their gliding and darting movements in a few minutes, and "clumping" was marked in half an hour. Durham did not seem to attach so much importance to the cessation of movements of translation, and asked what was the meaning of this reaction—was it associated with immunity? Out of 1300 cases of typhoid seen as Physician to the City Hospital, relapses occurred in 4 per cent.

Boyce said no one would question the value of the test, and its simplicity made it incumbent on all to apply it.—*British Medical Journal*, February 13, 1897.

West London Medico-Chirurgical Society.

Disorders Associated with the Menopause.—Amand Routh first dealt with organic lesions common at that period of life. He showed that the vulva was apt to become affected with local hyperæsthesia,—*e.g.*, pruritus pudendi, which was a symptom of many conditions. It might be due to a pure neurosis; to reflex cause, such as early carcinoma cervicis; to mucous polypus or prolapsed ovary; or to kraurosis, local rashes, dirt, parasites, vaginal or uterine discharges, irritating urine, as in cases of acidity, gout, or diabetes. Intrapelvic climacteric affections were next considered, and the influence of ovarian "internal secretion" discussed. The hæmorrhages of the menopause were enumerated, and the appropriate treatment mentioned. Functional pelvic and constitutional troubles were then considered, together with hints as to the management of such disorders. Tachycardia and flushings were described and their appropriate treatment added.

Charles Luke discussed the subject from the psychological aspect. He pointed out that the neuroses seen show many gradations from nervous irritability with effects on the character and temper to fully-developed insanity, which has a tendency in a large proportion of cases to melancholia, "a delusional insanity"; less frequently to mental weakness, and rarely to general paralysis. The change in the reproductive organs leads in some to a morbid querulousness, in others to a jealousy, either of which may seriously disturb domestic peace. Sexual excitement sometimes is developed which exceeds all control, depraved and vicious habits may show themselves, and dangerous accusations be made, which, although remarkably unpleasant may have unavoidable medico-legal interest. Drunkenness and the drug habit are specially noted at the climacteric. The treatment advocated was change of air and scene, removal from friends, together with attention to the bodily health. By these means many patients were restored to mental and physical vigor.

Harry Campbell observed that the nervousness of the climacteric is

not strictly synchronous with the menstrual irregularities of this epoch,—that a wave of nervous irritability comes over the woman before the commencement of the irregular menstruation, and lasts for some time after its disappearance. The same is true of puberty. He contended that practically every woman suffered from depression of spirits at the climacteric. He alluded to the frequency at this epoch of such morbid cephalic sensations as a sense of weight, burning, coldness, and irritation, especially in the region of the vertex, and to the common association with vertical headache of a sense of impending insanity. Tenderness of the scalp is very common at the climacteric. He referred to the frequency of post-climacteric monthly manifestations. He had observed them in over a hundred cases, and in one case had traced them to beyond 70 years of age. He was inclined to believe that the menstrual rhythm continued in all women to the end of life.

Mansell-Moullin said that Dr. Routh had dealt exhaustively with the local troubles of the vulva commonly met with at this period. One symptom to which Dr. Moullin drew attention was dyspareunia. Cases occurred where the introitis is small; the mucous membrane of the vulva has already acquired that smooth and glazed appearance characteristic of senility, and around the ostium vaginæ are certain red, well-defined circumscribed spots, extending forward and involving the meatus urinarius and the urethral canal. These are exquisitely tender and bathed in a muco-purulent discharge. This condition had been termed lupus minimus, which Dr. Moullin regarded as a misnomer.

Henry Sutherland remarked that he did not believe that the change of life *per se* had much influence in causing insanity at this period. His data were based on an investigation of one hundred cases of insanity at this epoch. The form of insanity was melancholia in 67 per cent.; mania, 24 per cent.; dementia, 4 per cent.; epileptic insanity, 3 per cent.; general paralysis, 2 per cent. The prognosis is usually favorable, 40 per cent. recovering. The duration of the attack varies from three months to three years, after which time the outlook is hopeless. Dr. Sutherland added some suggestions as to treatment.

McAdam Eccles alluded to two points of interest to the surgeon in connection with the menopause: 1. As to operations at this period. 2. As to whether the involution of the sexual organs had any effect on mammary cancer.

Forbes-Ross referred to the insanity occurring in the male sex at a period corresponding to the climacteric, and that some derangement of the abdominal organs was associated with the mental disorder.

McCann agreed with Dr. Harry Campbell as to the continuance of the menstrual phenomena after the blood-loss had ceased, as the discharge of blood may be looked upon as an accidental concomitant of menstruation, examples of so-called white menstruation being not uncommon. He pointed out that cases of early menopause might be confounded with a condition which he believed to be more frequent than was generally accepted,—viz., transitory superinvolution of the uterus, associated with

amenorrhœa and climacteric signs and symptoms. He described a case where a patient, aged 32, having nursed her child for eight months, had a period of complete amenorrhœa for fourteen months after the cessation of lactation. She complained of marked flushings and other disturbances commonly associated with the menopause. On vaginal examination the uterus was small, the cavity measuring two inches. There was contraction of the upper portion of the vagina (a well-known sign after the menopause). Six months later menstruation returned, together with increased size of the uterus, and the patient has continued to menstruate regularly. She was not anæmic. He had seen in addition two other cases closely resembling the one described.

Chapman advocated belladonna in the treatment of tachycardia at the menopause.

Routh, in reply, disagreed with Dr. Harry Campbell, and believed that the neuroses of the menopause were commoner in the upper classes. He was familiar with the painful granular areas of the vulva. In reply to Mr. Eccles, he believed that acute mania was more common after ovariotomy at the menopause than at other ages. Ovarian "internal secretion" was a very interesting subject. The cure of osteomalacia by oöphorectomy was explicable by the chemical changes produced in the blood, but the very recent recovery of recurrent mammary carcinoma after oöphorectomy was so far inexplicable. He had not seen any cases of temporary superinvolution described by Dr. McCann, and was much interested in his case.

Charles Luke said that Dr. Harry Campbell had added a very scientific explanation of the symptoms of "flushings." He disagreed with Dr. Sutherland's opinion, and thought that the climacteric was frequently associated with a mental "breakdown." He had seen acute mania develop after the removal of a mammary cancer at the climacteric. He thought that mental and nervous symptoms were more frequent in the upper classes. He agreed with Dr. Forbes-Ross in thinking that there were analogous mental disorders in the male corresponding to the climacteric in the female.

Edinburgh Medico-Chirurgical Society.

The Perigraph, a New Instrument for Clinical Mensuration.—Graham Brown demonstrated the perigraph,—an instrument which he had devised for the purpose of delineating the outline of the thorax and for clinical mensuration generally. It was more accurate and had a more general application than the cystometer at present in use; the principle was that of the ordinary pantagraph, but, to adapt it to the shape of the chest, the arm bearing the tracing-point was hinged and in place of being straight was in the form of a sickle. Tracings of the thorax, head, and other parts of the body made by this instrument were exhibited.

Dual Brain-action and its Relation to Certain Epileptic States.—Lewis C. Bruce referred to the ambiguous manner in which the term was employed to indicate different morbid psychical processes, some of which were really varieties of delusional insanity. For example, cases in which the patient

carried on a conversation with himself, replying to his own questions in the character of a second person, and, farther, those where the subject maintained that he was conscious of two distinct personalities, were not to be regarded as genuine instances of dual brain-action. On the contrary, the name should be limited to a morbid state in which there was evidence of independent and isolated action of the two halves of the brain. He had already recorded a very typical instance,—that of a patient who was at one time maniacal, spoke English and did not understand Welsh, was right-handed, and wrote mirror-fashion with the left hand; at another, was a dement, spoke Welsh only, though he understood English, and was left-handed, writing this time in the ordinary manner whichever hand he used. The memory did not extend from one state of consciousness to another. Such instances were exceedingly rare. Dr. Bruce then expressed his belief that some forms of epileptic automatism might be capable of explanation on the hypothesis of dual brain-action as defined above. A patient in the Edinburgh Royal Asylum was subject to three varieties of epileptic seizure,—petit mal, convulsions of the right side without abolition of consciousness, and typical grand mal. On one occasion, after an attack of the second of these, it was noted that the patient (who usually in the intervals between her fits displayed no such peculiarity) underwent a complete alteration of demeanor. Recognizing none of her attendants, obscene and abusive in manner, she became left-handed, and this state of matters, after lasting a few hours, passed off, leaving her without any recollection of what had occurred. His theory of the case was that the patient's brain had developed unequally; the left hemisphere might be regarded as fairly normal, but unstable and liable to the motor storm of epilepsy, while the right was undeveloped or atavistic. In most persons the left hemisphere was predominant, and here this was so, the altered personality being due to the temporary abrogation of its functions after the epileptic fit, and to the unguided action of the right hemisphere. Assuming this, and since the post-epileptic manifestation might quite well be considered one of epileptic automatism, it was justifiable to imagine that, in some cases at least, these automatic acts on the epileptic were to be regarded as due to the independent action of one central hemisphere of inferior or abnormal development. It was right to say, however, that he had examined many epileptics in Edinburgh and elsewhere, and had not been able, except in one other instance, to find distinct evidence of dual brain-action; the difficulty obviously being that it was only in the presence of definite motor symptoms that it was possible to decide in any given instance which side of the brain was active.

Cases of Gall-stone.—Rutherford Morison, of Newcastle-on-Tyne, emphasized (as Osler and he himself had previously done) the absence of pain as a prominent symptom in many of these cases. 1. A woman, aged 44, had suffered from jaundice for some months; pain had been present only at its onset; every time she rose she had a rigor, and jaundice increased. There was a history of previous recurrent attacks of colic. On physical examination the liver was found enlarged, but no sign of distension of the

gall-bladder could be made out; at the operation the common duct was found blocked by a stone, the gall-bladder empty, contracted, and with dense, thickened walls. 2. A woman, aged 49, had suffered up to thirteen months previously from spasms of abdominal pain, since then had lost flesh and noticed a tumor in the right side. On examination a movable tumor the size of a cocoa-nut was felt in the right hypochondrium, while at the operation a calculus was found blocking the cystic duct, and enormously distending the gall-bladder. In this case there had been no jaundice. 3. A woman, aged 50, had suffered for two years from attacks of abdominal pain. Jaundice had supervened, and was increasing rapidly, and a small tumor could be felt in the right hypochondrium. At the operation the gall-bladder was small and contracted, but there was a thin-walled diverticulum (the tumor felt), which contained a stone, as also did the common duct. An interesting comparison was drawn between the effects of complete and partial occlusion of the biliary passages on the gall-bladder, and those of analogous urethral obstruction on the urinary bladder. It was pointed out that in cases of obstruction of the common duct it was rare to meet with dilatation of the gall-bladder.

William Russell said that the paper had not removed a difficulty which was common in practice,—that of the differential diagnosis of such conditions as Dr. Morison had described, for cases of recurrent duodenal catarrh, duodenal cancer, and cancer of the head of the pancreas.

In reply, Dr. Morison stated that the absence of distension of the gall-bladder with jaundice was in favor of gall-stones; its presence of malignant disease.—*Medical Press and Circular*, February 10, 1897.

UNITED STATES.

Society of Alumni of Bellevue Hospital.

Antitoxic Serum in the Treatment of Diphtheria.—Hermann M. Biggs stated that the use of diphtheria antitoxin prepared in the laboratories of the Health Department of New York City began January 1, 1895. At first, however, the serum was limited in amount and unsatisfactory as to strength. Foreign antitoxin at this time was difficult to obtain and high in price, averaging from $8.00 to $12.00 a dose (or $0.80 for 100 antitoxin units, Behring's standard). The price now of antitoxin furnished by the health department is, for similar preparations, $0.75 to $1.50 (or $0.10 for 100 units).

Beginning first in the department hospitals, the health-board antitoxin was, as soon as a sufficient quantity was available, employed in any case of diphtheria throughout the city, being administered by inspectors without charge, on the request of the attending physician. During the period ending October 1, 1896, 1352 cases regarded as diphtheria were treated in their homes by inspectors of the department at the request of the attending physicians, and 1207 persons (excluding inmates of public institutions) who had been exposed to diphtheria were immunized by the

administration of antitoxin. More than 3000 injections of antitoxin were administered and about 6000 visits made. This duty was performed by the medical inspectors,—Dr. H. F. Koester, Dr. W. E. Studdiford, Dr. J. S. Ennis, Dr. L. K. Graves, and Dr. W. J. Pulley. These cases occurred, as a rule, among the very poorest classes in the tenement-house districts, in the most unfavorable surroundings, and were severe cases, often regarded by the physicians in attendance as hopeless, and usually came under observation late in the disease. Among the later cases, however, not infrequently comparatively mild cases of diphtheria were referred for treatment, physicians having seen the effects of antitoxin on the course of the disease. Up to April 1st about 8 per cent. of the cases treated were found moribund when first seen by the inspectors, while in the last six months the percentage was one-half of this. Practically no other treatment was employed besides the administration of antitoxin; in some few cases strychnine, whisky, etc., were also given. In many instances the attending physician discontinued his visits after referring the case to the health department, as the family were unable to pay for his visits.

There has been from the first a continuous and marked improvement in the results obtained, owing, it is believed, to the increased experience in the use of this agent, the earlier application of the remedy, the better preparation of the serum, and the larger dosage employed. While in the first year the mortality from diphtheria was 17.9 per cent., during the last six months it was only 11.1 per cent.

For the carrying out of the plan adopted the city was divided into districts under charge of inspectors, who are always on duty and liable to be called upon at all times during the day or night. The requests for the administration of antitoxin are received at the offices of the health department, and immediately referred by police telegram or by telephone to the inspector in charge of the district in which the case occurs. In some instances recently, when several cases have been treated for the same physician, they have been referred directly to the inspector to save time.

Up to October 1st, in all, 1352 cases regarded as diphtheria have been treated. Of these, 100 cases showed no Lœffler bacilli on bacteriological examination, were considered as false diphtheria, and excluded from the statistics; or were found to be true diphtheria later and were transferred to the Willard Parker Hospital; or the treatment was discontinued from some other cause. There remain 1252 cases, of which 1054 recovered and 198 died, the mortality being 15.8 per cent. Of the whole number, 856 were treated previous to April 1, 1896, and among these the mortality was 17.9 per cent; 396 were treated from April 1st to October 1st, and among these the mortality was 11.1 per cent. While the difference in mortality may in part be due to the season of the year, yet it does not satisfactorily account for the whole difference.

Of the 1252 patients 80 were moribund at the time of the first injection, or died within twenty-four hours after this. These may properly be excluded in a consideration of the utility of antitoxin in the treatment of diphtheria. There remain 1172 cases with 118 deaths, or a mortality of 10

per cent. Five hundred and seventy-four, or nearly half of the whole number, were reported by the inspectors to be in a bad condition and suffering from very severe or septic diphtheria at the time of the first injection; 268, or about 21 per cent., were reported as in good condition, or apparently affected with a mild form of the disease when first seen. In 355, or more than 28 per cent. of the whole number, the larynx, with or without the pharynx, tonsils, and nares, was involved. In 242 cases, in addition to the pharynx and tonsils, the nares were involved. One hundred and eight deaths occurred among the 355 laryngeal cases, giving a mortality of 30.4 per cent. Seventy-two of the laryngeal cases were intubated, and of these 29 died, or 40.2 per cent. In 283 laryngeal cases there was no operative interference, and in these the mortality was 27.9 per cent. Of the fatal laryngeal cases, in 38 the patients were moribund at the time of the first injection or died within twenty-four hours after it. If these are excluded, there remain 317 cases with 70 deaths, or a mortality of 22 per cent.

In the majority of cases (793) only one injection of antitoxin was administered; in 352 two injections were made, and in 108 three or more. In all severe cases the initial dose was large,—from 1500 to 3000 units,—experience showing that the best results were obtained from large initial doses, and the tendency has been constantly to increase the size of the dose. As a rule, the patients were seen the second time at the end of twenty-four hours, and where it was considered necessary a second injection was then administered. They were afterward seen at intervals until the disease had terminated either in complete convalescence or death.

The serum employed has been generally of high grade, and during the last nine months has been at least twice as strong as Behring's No. 3,—that is, it contained from 300 to 500 antitoxin units in each cubic centimetre. Better results have been obtained with the high-grade preparations and with larger doses. There has also been a considerable diminution in the frequency and severity with which rashes have occurred since the use of the high-grade preparations of antitoxin in which smaller doses of serum are employed. Joint pains were of very unusual occurrence. In some of the early cases where large immunizing doses were given, severe joint symptoms, accompanied by prostration, occurred, and in a number temporary albuminuria. No case has come under observation where death could be ascribed to the administration of the serum or where any permanent injury has been produced by it.

In all of the cases, with rare exceptions, in which the clinical features were unmistakable, the clinical diagnosis was confirmed by bacteriological examination. In a few cases the result of the bacteriological examination was indecisive, while the case was evidently diphtheria, and these have been included. In others bacteriological examination showed clearly that the case was false diphtheria, and these have been excluded. The usual practice has been, when the case was seen for the first time by the inspector, to administer an injection of antitoxin if it seemed clinically to be a case of diphtheria, and at the same time to make a culture from the throat for bacteriological examination. The course subsequently depended upon the result of the bacteriological examination.

Immunizing injections, varying from 50 to 500 units were administered to 1207 persons in families where there were children exposed to the disease; in 5 children laryngeal diphtheria developed within twenty-four hours after the injection, and in 7 others pharyngeal diphtheria appeared. All of these recovered on receiving further curative injections. In 9 children diphtheria developed within thirty days after the immunization. All of these cases but 2 were mild, and the patients recovered; in 1 scarlet fever appeared on the second day and the patient died, in another severe diphtheria appeared on the fifth day, and the patient recovered after antitoxin was administered. From the data at command it would seem that the protective influence of the immunizing injections cannot be depended upon to last longer than about four weeks, although in many cases the period is apparently longer. With the high-grade preparations of antitoxin now employed the amount of serum required for an immunizing injection is very small, from 3 to 10 or 15 minims (0.20 to 0.67 or 1 cubic centimetre), according to the age of the patient and the strength of the preparation; and since these small doses have been employed it has been unusual to see any disturbances (which sometimes ensued on the injection of large quantities of antitoxin) following the administration of an immunizing injection. Among the patients treated with injections in an infant-asylum were an infant 3 weeks old, born at full term, injected with 150 units, and weighing at the time of injection only four pounds three ounces, and another infant, premature, 19 days old, born at the seventh month, still in the incubator, injected with 150 units, weighing only three pounds eight ounces. These infants had no reaction and no rash. Several pregnant women, in the eighth and ninth months, were also injected without harm.

From October 1, 1895, arrangements were made to furnish free antitoxin to physicians for use among the poor, on condition that reports of the cases thus treated should be sent in to the health department. This free antitoxin could be obtained from the druggists acting as agents upon the statement of the physician that the patient was too poor to pay for it. Blanks were also furnished, upon which a history of the cases could be filled out by the attending physician. This arrangement has not been very generally known, and only recently has been much utilized by physicians, so that the complete report has not yet been obtained. Up to October 1, 1896, 409 such cases have been reported, of which 34, proved on bacteriological examination to be false diphtheria, were transferred to Willard Parker Hospital, or had histories too incomplete for proper tabulation and are therefore excluded; in the remaining 375, 307 patients recovered and 68 died,—a mortality of 18.1 per cent.

The following *résumé* of the statistics and reports on the antitoxin treatment of diphtheria has been collected from the reports published in the various medical journals of the continent of Europe, Great Britain, and the United States, beginning with the first extensive application of the new remedy in the early part of 1894 and bringing the subject up to October 1, 1896. In compiling these statistics, though the field has been carefully gone over, the collective investigations of Heubner, Monti, Eulenburg,

the Kaiserliches Gesundheitsamt, and others, and particularly Welch's admirable review of the subject, have been made use of.

The first report of experiments made with the blood-serum of immunized animals was communicated by Behring and Wernicke to the Seventh International Congress of Hygiene and Demography, in London, August, 1891. The earliest report of cases treated with antitoxin was in 1893,—30 cases treated by Behring in the Institute for Infectious Diseases in Berlin. In April, 1894, 233 cases of diphtheria, treated in the Berlin hospitals, with a mortality of 23 per cent., were reported by Ehrlich, Kossel, and Wassermann. About the same time Baginsky and Katz reported 163 cases, with a mortality of 12.9 per cent., treated in the Kaiser und Kaiserin Friedrich Kinderkrankenhaus in Berlin. But it remained for Roux to arouse the interest of the world in the discovery which Behring had announced three years before. Roux's masterly address, delivered at the Eighth International Congress of Hygiene and Demography of Budapest, September, 1894, in which he reported 300 cases of diphtheria treated with antitoxin in the Hôpital des enfants malades in Paris, really directed the attention of the whole medical profession to this subject, which has since become one of the most interesting in the history of medicine, and with this may be said to have begun the first extensive application of the new treatment of diphtheria.

In calling attention to the ways in which the value of the antitoxin treatment of diphtheria has been tested,—viz., by statistics and by clinical study of the course of the disease,—the various questions were discussed which might vitiate statistics of the kind, and it was shown how such fallacies might be avoided by comparing the mortality of a large series of cases treated by antitoxin with a similar series treated previously or simultaneously in other ways in widely separated places and over an extended period of time. Regarding the value of the evidence as to the efficacy of the remedy based on the clinical study, this, of course, depended on the confidence we placed in the opinions formed by the individual observers; but when the opinions expressed by many of the best clinical observers in all parts of the world were almost unanimously in favor of antitoxin, it would seem that there were no longer any reasonable grounds for refusing to accept the vote of the vast majority.

[A series of statistical tables was then presented illustrating the results of the antitoxin treatment up to the present time. The statistics contained all the larger series of cases which have been reported up to October 1st. No isolated cases were taken, only series of cases of ten and over. There had been no selection of cases and no reduplication so far as known, certainly none that could be avoided.

Table I showed the mortality of cases of diphtheria treated with antitoxin, and the previous or simultaneous percentage of mortality without antitoxin contained in 158 reports of cases in hospital and private practice. These cases included not only those of patients to whom in the early use of antitoxin were given insufficient doses, but also of those who were moribund at the time or died within twenty-four hours after the first injection.]

In 109 reports from hospitals there were 15,560 cases with 3009 deaths,

or a mortality of 19 per cent., with the antitoxin treatment; in 49 reports from private practice there were 9208 cases with 995 deaths, or a mortality of 10.1 per cent.; or, in a total of 24,768 cases there were 4004 deaths,—a mortality of 16 per cent., as against a previous or simultaneous mortality of 30 to 40 per cent. (taking the lowest figures in the reports) without antitoxin. It would appear, therefore, according to these reports, that there has been a reduction of mortality in diphtheria in both hospital and private practice of at least 50 per cent., as the result of the antitoxin treatment. The lower percentage of mortality in private practice is probably due to the fact that these cases usually come under treatment in an earlier stage of the disease, and are generally more favorable cases.

[Table II gave the mortality of cases of diphtheria treated *with* and *without* antitoxin (taking the reports which showed these data) at the same time, and in the periods immediately before and after the serum treatment.]

From 45 reports in which these cases were recorded there were 11,147 cases treated with antitoxin, resulting in 2166 deaths, or a mortality of 19 per cent.; while at the same time, or immediately before or after, there were treated 13,294 cases *without* antitoxin with 5026 deaths, or a mortality of 37.8 per cent. Of these, 7986 cases were treated in hospitals *with* antitoxin, with a mortality of 21 per cent., and 9039 cases treated *without* antitoxin, with a mortality of 36.4 per cent. Three thousand, one hundred, and sixty-one cases were treated in private practice *with* antitoxin, giving a mortality of 13 per cent., and 4255 cases treated *without* antitoxin, with a mortality of 40 per cent.

Thus put to the severest test, selecting the worst cases, as was often done for purposes of control and to prove the merits of the new remedy (though occasionally it was an unfortunate necessity, owing to lack of antitoxin, which compelled a forced interruption of the antitoxin treatment), there is still a difference of 50 per cent. in favor of the antitoxin treatment.

Table III gives the mortality of diphtheria in the Berlin and Paris hospitals for 1893, 1894, 1895, and the first half of 1896.

TABLE III.

	BERLIN HOSPITALS.			PARIS HOSPITALS.		
	Cases.	Deaths.	Percentage.	Cases.	Deaths.	Percentage.
1893	2,570	1,132	44.0	1,882	968	51.4
1894	2,890	801	27.6	2,355	837	35.5
1895	3,144	493	15.7	2,664	363	13 6
1896	1,100	151	13.6	1,298	199	15.3 (first half-year.)

From a comparison of the figures in the above table it appears that since the introduction of antitoxin into the hospitals of Berlin and Paris, according to the official reports, the mortality from diphtheria and croup has been reduced more than one-half.

It has been maintained by some that, in calculating the mortality from

diphtheria, not the percentage mortality, but the absolute mortality is the only fair criterion of the value of antitoxin.

Table IV shows the actual number of deaths from diphtheria and croup in Berlin, Paris, and New York since 1888, including the first half of 1896.

TABLE IV.

	CITY OF BERLIN.	CITY OF PARIS	CITY OF NEW YORK.
1889	1,284	1,890	2,291
1890	1,586	1,859	1,783
1891	1,078	1,531	1,970
1892	1,405	1,557	2,106
1893	1,643	1,266	2,558
1894	1,430	1,009	2,870
1895	996	440	1,976
1896	294 (first half-year.)	329 (first half-year.)	1,392 (first three-fourths of a year.)

From this table it would appear that in the cities of Berlin, Paris, and New York since antitoxin came into more general use the absolute mortality has been conspicuously reduced. In New York the absolute mortality figures do not show quite so well as in the cities of Berlin and Paris, as the antitoxin has not been as generally used in that city. But the percentage mortality shows a marked diminution in the death-rate. In 1894 there were in New York 9641 cases of diphtheria and croup reported, with a mortality of 29.7 per cent.; in 1895 there were 10,353 cases, with a mortality of 19.1 per cent., and in 1896 (first nine months) there were 8286 cases, with a mortality of 16.8 per cent.

H. Kossel shows also some striking statistics of a like character in refutation of the criticism made by Gottstein and others, that, in order to prove that the reduction of mortality attributed to antitoxin has actually taken place, it must be shown that there has been an *absolute* reduction of mortality at the same time that the number of cases of diphtheria has increased.

Table V shows the cases and absolute death-rate from diphtheria in the Berlin hospitals and in the city of Berlin.

TABLE V.

	BERLIN HOSPITALS.		BERLIN CITY.	
	Cases.	Deaths.	Cases.	Deaths.
1889	1,623	573	4,220	1,210
1890	1,792	695	4,586	1,601
1891	1,764	623	3,504	1,342
1892	2,074	837	3,683	1,637
1893	2,450	951	4,315	1,416
1894	2,890	801	5,220	1,321
1895	3,060	484	6,106	987

Taking the absolute death-rate from diphtheria and deaths to 100,000 in all the German cities of over 15,000 population, he gives the following :—

TABLE VI.

	Absolute Deaths.	Deaths to 100,000.	
1889	11,919	108	The average from 1886 to 1894 was 106.
1890	11,915	105	
1891	10,484	84	
1892	12,365	97	
1893	16,557	130	
1894	13,790	101	
1895	7,611	53	

These figures taken together would seem to prove conclusively that the absolute mortality from diphtheria has been reduced at the same time that the number of cases have increased; and they prove, moreover, that the epidemic of diphtheria, in Germany at least, instead of being on the decrease has been steadily on the increase for the last six or eight years up to 1894 and 1895, when there was a sudden and marked decline in the death-rate, corresponding to the use of antitoxin. That would, indeed, have been a strange coincidence of natural causes which reduced the mortality of diphtheria for the benefit of antitoxin, instead of the reduction of mortality being due to the effects of antitoxin.—*New York Medical Journal*, January 30, 1897.

Selections from Reports of Members of the Annual's Staff of Correspondents.

Poland.

DR. J. DRZEWIECKI,

Redaktor Korespondent z działu polskiej literatury tyczącej się: Medycyny ogólnej i lecznictwa; pediatryi; akuszerzyi; ginekologii; laryngologii; otologii; hygieny; demografii; medycyny sądowej; histologii; patologii; bakteryjologii; anatomii; fizjologii.

Wszystkie pisma lekarskie, dzieła, rosprawy, monografije, itd., w języku polskim wydane, a tyczące się przedmiotów powyższych, winny być nadsyłano pod adresem

DRA. DRZEWIECKIEGO,
87. Krakowskie Przedmieście,
Warszawa,
Królestwo Polskie.

Complete Prolapsus of Inverted Uterus in Pregnancy.—SAKS has described the third case of complete prolapsus of inverted uterus mentioned in the Polish literature,—one of the few described in general up to the present. The cause was increased abdominal pressure in a primipara and protracted delivery under conditions where no flabbiness of the uterine muscles could be suspected. An old woman, performing the office of midwife, advised the patient to strain herself very much, and at the same time exerted a strong pressure upon the abdomen with the hand, to cause the expulsion of the placenta. The author on being called in reduced the uterus with his hands; but the patient died thirty-six hours after delivery without any signs of infection. The author attributes the cause of death to shock. —*Gazeta Lekarska*, No. 48, 1896.

Remarks on Cancer of the Uterus.—SWITALSKI has studied this subject the last thirteen years in the clinic of Professor Jordan, at Cracow. Of the 9194 patients treated in the clinic, 363 (3.94 per cent.) were affected with cancer of the neck of the uterus. The majority of the patients (43 per cent.) were between 40 and 50 years old; in 31.3 per cent. the cancer developed after the menopause. In 6.3 per cent. there had been no births or abortions; the remainder had 1654 deliveries, making an average of six births per patient. The connection between numerous deliveries and cancer seems to be an active one, because they may induce complete changes in the mucous membrane of the uterus, while, on the other hand, it is proven that cancer mostly develops in places where there are erosions. The relative rarity of cancer of the uterus in Jewesses was noticeable at this clinic. (Vegetarians explain this by the abstinence from pork.—Cor. Ed.) The author ascribes it to the fact that Jewesses more readily consult a physician in cases of affections of the uterus, and, perhaps, to their rites regulating coitus. He calls attention to the importance of an early diagnosis, which is, however, not easy. Of the cases at the Cracow clinic barely 19.5 per cent. were suitable for radical operation, and only half of the patients—*i.e.*, 35—consented to this operation. Among these 35 the uterus was completely removed in 30; in 4 the vaginal portion was amputated by Braun's method, and in 1 only the posterior labium uteri was removed. Of the last 5 patients 3 suffered relapses; of the 2 others nothing is known.

Of the first 30 the uterus was excised *per vaginam* in 28; 1 was operated on by Rydygier-Freund's operation, and 1 by Rydygier-Herzfeld's method.

Of 20 patients, fourteen months after the operation, 6 are quite healthy; 6 died from relapse; of 5 the fate is unknown; in the remaining 3 a relapse has just begun. Hence 20 cases (40 per cent.) are cured.—*Przeglad Lekarski*, Nos. 48 and 49, 1896.

Sweden.

DR. F. EKLUND,
Brefväxlande Medarbetare
för den
SVENSK MEDICINSK
LITTERATUR.

Af alla i Sverge utkommande medicinska tidskrifter, böcker, afhandligar, monographier a. s. v. torde ett exemplar benäget öfversändas till

DR. ABRAHAM
FREDRIK EKLUND,
Sibyllegatan, 3 A,
Stockholm.

Some Cases of Astasia-abasia.—CHARLES PETREN reports several cases of which the first was an unmarried woman, 28 years of age. This he considers as one belonging to the chorea-like variety.

Case 2.—A single woman, 22 years old; also a case of chorea-like abasia.

Case 3.—Unmarried woman, 47 years old,—a case which showed unmistakable partial abasia, complicated with hysterical stigma.

Case 4.—Man, 69 years of age, which the author considers as one of trepidating abasia.

With regard to the nature of the disease, it seems to the author that any anatomical alteration in the spinal cord as cause of the disease must be definitely excluded, and that a similar alteration in the brain may be regarded as improbable. Abasia must, therefore, be considered as a dynamic disease. Walking

being, in all probability, a function of the brain, the author furthermore believes that abasia is due to a disorder of that organ, and that even that disorder is of a psychical nature, the more so since the motor derangement is manifestly systemic and limited to a certain system of movements. He cites a case as an example of a systemic paralysis, which is quite the contrary of abasia. For the time being no other conception seems to the author to be legitimate than to consider the abasia as a manifestation of hysteria,—that is to say, the cause of the abasia must be looked for in that portion of the mental life which is distinct from consciousness, or, in other words, in the non-dominion of the conscious part of the life of the soul over the psychical processes.—*Hygiea*, vol. lviii, No. 11, pp. 515 to 547, 1896.

Treatment of a Strangulated Hernia by Means of a Moderate, Continued Pressure.—LANDAHL reports a case in which a man, 60 years old, had suffered during some hours from a strangulated internal inguinal hernia of the size of a hen's egg. The patient's general condition was very poor, the lower portion of the abdomen was very sensitive to pressure, and he complained of violent pains. Repeated trials of reposition, after morphine had been injected subcutaneously, were of no avail. The patient having been placed in a suitable position, Landahl applied over the rupture, and a comparatively large surface of its immediate surroundings, a bag half-filled with about sixteen pounds of shot. After about fifteen minutes the hernial sac was empty and the hernia completely reduced. Recovery ensued.—*Eina*, vol. xx, No. 22, November 30, 1896.

On the Operative Treatment of Immature and Partial Cataracts.—J. WIDMARK gives statistics embracing one hundred cases, operated upon in the Hospital of the Seraphim, and supports the opinion that the preliminary operations for immature cataracts should be restricted to individuals under 55 or 60 years of age, but that extraction should be performed immediately in persons having exceeded that limit of age. The extraction of such cataracts of itself implies no material danger, provided the operator be experienced. The inconvenience lies in the fact that most frequently a second operation is required, and, inasmuch as it sometimes leads to serious complications, the operation for immature cataract in the aged gives a more serious prognosis than extraction of the completely mature form.—*Hygiea*, vol. lviii, No. 11, pp. 460 to 514.

Appendicitis and Inguinal Hernia.—F. KAYSER reports the above case as occurring in a man 22 years of age. The patient had twice before suffered from slight attacks of appendicitis. Six months after he first observed the existence of a right inguinal hernia of the size of a hen's egg, he was suddenly taken ill with diarrhœa, together with headache and vomiting, which ceased after twenty-four hours, while the pain remained localized in the lower part of the abdomen, especially in the greatly-increased rupture. The general condition was good, fever very slight. The hernial sac was laid open. Upon attempting to free the omentum, which adhered firmly to the lower part of the hernial sac, there burst suddenly an abscess of the size of a walnut, communicating through a hole, barely as large as a pea, with the

vermiform process, which was protruding in the hernial sac. The appendix was amputated, and the stump placed in the cæcum. After twenty-four hours the morning temperature was 39° C. (102.3° F.) and the evening temperature 39.7° C. (103.5° F.). Complete recovery ensued after twenty-two days.—*Hygiea*, vol. lviii, No. 12, pp. 557 to 560.

Clinical Notes and Therapeutic Suggestions.

The Role of Bread in the Etiology of Typhoid Fever.—During the recent epidemic of typhoid fever in Lyons, the hypothesis was suggested of the possible transmission of the disease by means of bread made with water (well-water, etc.) contaminated with the typhoid bacillus.

In this connection experiments were made by Professor Arloing, the results of which are re-assuring, both for the medical profession and the world at large. Cultures of Eberth's bacillus contained in little glass bulbs were introduced into the bread before baking. The bouillon thus introduced did not give rise to the slightest vegetation during the process of baking. Moreover, the bacillus of Eberth is destroyed after having been exposed to a temperature of 70° C. (158° F.) during only ten minutes, and chemists have shown that the temperature of an oven in which bread is baked reaches about 210° C. (410° F.). Payen has likewise demonstrated that in the centre of the loaf, the soft portion, the temperature is as high as 110° C. (230° F.) while it is being baked. The bread into which the bulbs were introduced was made of various kinds of dough, always with the same result.—*Le Bulletin Médical*, February 14, 1897.

Anticholera Inoculation.—In Haffkine's Report to the Government of India a detailed statement of his proceedings in India in connection with anticholera inoculation—or vaccination, as he seems to prefer to call it—is given. The results of the experiment made in Gaya jail are fairly encouraging. Of 433 prisoners, 215 submitted to inoculation, after cholera had appeared in the prison. Among the inoculated there occurred 8 cases, with 3 deaths; among the unprotected, 20 cases, with 10 deaths. The Lieutenant-Governor of Bengal considered that these results justified confidence in the prophylactic, but declined to sanction "voluntary" inoculation in the Bengal jails generally. "The circumstances are different in cases where outbreaks of cholera have actually occurred, as was the case in Gaya jail; the Government is under an obligation to resort to any remedy which seems as hopeful as this one does to prevent the course of the disease."—*Dublin Journal of Medical Science*, February, 1897.

Treatment of Epilepsy.—Flechsig reviews the unfavorable results of the Flechsig treatment of epilepsy with a combination of opium and bromides, as reported by several writers recently; he considers that in the fatal cases recorded no causal relation to the treatment has been shown, and points out that a fatal result is common enough in status epilepticus without any opium treatment. A careful watch should be kept by the physician for any untoward symptoms, which would indicate withdrawal of the drug;

and Flechsig is more inclined to blame the physician than the drug for the fatal results. His own experience of his treatment by increasing doses of opium has been most satisfactory, six cases out of fifty treated thus have had no recurrence for two and one-fourth years, and all the cases treated were severe cases of many years' duration, which had resisted all previous treatment. He begins with simple bromide treatment, and later, if there is no improvement, adds opium in increasing doses. If, however, the opium be used, the patient must be treated as one who is seriously ill; skilled nursing and the most careful medical attendance are essential to the treatment.—*Neurol. Centralblatt*, January, 1897, in *British Medical Journal*, February 13, 1897.

Toxicity of Perspiration in Epileptics.—It is generally known that the toxic origin of epileptic attacks is more and more recognized. Cabisto, guided by the experiments made in 1888 by Queirolo, concerning the toxicity of perspiration in general, has investigated the same in epileptics. He was thus able to show that the perspiration collected during, or immediately before or after, an attack almost killed the rabbit into which it was injected, and that, on the other hand, that secreted by the patient at a period more distant from the attack was perfectly inoffensive and differed in no way from that of a healthy person. Basing himself upon these experiments, Cabisto has largely made use of the diaphoretic treatment in epilepsy. His attempts were crowned with excellent results: Baths of hot air, associated with a bromide treatment, succeeded in diminishing the number of attacks in a great many patients.—*Le Bulletin Médical*, February 17, 1897.

Eucaine Hydrochlorate as a Local Anæsthetic in Hypertrophic Rhinitis.—Lewis S. Somers, of Philadelphia, has recently used the drug in a series of cases of hypertrophic nasal catarrh, in place of cocaine, to produce anæsthesia of the enlarged turbinals, so that reduction in their size by cauterization might be effected. A 4-per-cent. solution of eucaine hydrochlorate in distilled water was used, this corresponding to the strength of cocaine solution previously employed for that purpose. The drug was applied to the turbinated bodies in the same manner as cocaine, by saturating a cotton plug with a definite quantity of the solution and applying it to the part to be operated on until anæsthesia was completed. The cauterization was effected by means of chromic-acid crystals melted on the end of an appropriate applicator by means of the alcohol lamp. The results obtained can better be expressed by comparing the effects of the two drugs *seriatim*.

Cocaine usually produces its anæsthetic effects in the nasal cavity in from three to five minutes, anæsthesia continuing for twenty minutes to half an hour. In the series of cases in which eucaine was used, anæsthesia was not complete until eight or ten minutes had expired, and the loss of sensibility remained about twenty minutes. When an excessive amount of cocaine solution is used in the nares, it occasionally flows backward into the naso-pharynx, producing a very uncomfortable sensation of numbness in that region. It was noticed that this did not occur so markedly when eucaine was used, probably because of its slower anæsthetic action.

Eucaine causes hyperæmia of the mucous membrane when locally applied. This action is directly opposed to that of cocaine, and renders the drug of little value when the turbinal tissues are much hypertrophied, as the cauterizing agent cannot be introduced into the nasal cavity without injuring the septum. This action of eucaine in producing a temporary local congestion militates greatly against the use of the drug in active inflammatory conditions, but may possibly be obviated by using equal parts of eucaine and cocaine, as recommended by Berger. Dr. Reichert, of Berlin, has used eucaine in the throat and naso-pharynx, and claims that, aside from its anæsthetic action, it is harmless in medicinal doses, not rapidly and suddenly affecting the heart as does cocaine.

This oversanguine enthusiasm for the drug on the part of some observers should, the author thinks, be carefully considered before it is used very freely, as eucaine is a poison similar to cocaine, but possessing the great advantage of being decidedly less harmful to the organism when used in the same doses. Dr. Reichert also claims that eucaine influences a curative action in diseases of the Schneiderian mucous membrane, independent of its anæsthetic properties. Another advantage which the drug possesses over cocaine is that it may be kept for an indefinite time in solution with sterilized water, 1 part to 10. The solution may be repeatedly sterilized by boiling without impairing its anæsthetic properties.

Of minor importance is the fact that the price of eucaine is less than that of cocaine.—*Therapeutic Gazette*, January 15, 1897.

Prevention of Puerperal Convulsions.—J. N. Upshur, of Richmond, reports five cases illustrating the prevention of puerperal convulsions. He emphasizes the necessity of the early engagement of the medical man by the patient and his subsequent close supervision of the case. The urine may yield negative evidence, but severe head symptoms (headache, vertigo, etc.) and a hot, dry skin may warn us of danger. Excessive eating and overloading of the stomach are exciting causes. The preventive means are care of the diet, regular exercise in the fresh air, and special attention to the bowels and kidneys. In the attack Upshur recommends chloroform, bleeding, and active purgation, with prompt delivery of the child. If the patient remain unconscious after delivery, with symptoms of depression, an hypodermatic injection of strychnine nitrate will do good by sustaining the heart, diminishing the cerebral congestion, and keeping up the contraction of the uterus; morphine is positively contra-indicated. In the discussion which followed the reading of Upshur's paper several speakers testified to the good results they had obtained from the use of veratrum viride in such cases.—*British Medical Journal*, February 13, 1897.

Treatment of Eclampsia.—In an article on the above subject Charpentier, of Paris, submits the following conclusions:—

1. Every pregnant woman with albumin in her urine being exposed to attacks of eclampsia, the milk diet giving splendid results against the albuminuria, and in particular that met with in pregnancy, the urine of pregnant women should be examined with the greatest care, and, if the presence of albumin is ascertained, no matter how small it may be in quantity, an abso-

lute and exclusive milk diet should be instituted. This is the preventive treatment par excellence of eclampsia. In cases in which œdema is present, without albuminuria, it is well, if not an absolute necessity, to prescribe the milk diet.

2. If the patient is strong and vigorous and cyanosis is present, he begins by venesection, 200 to 300 grammes being drawn, followed by chloral. Milk is then administered by the mouth and, if necessary, through a sound.

3. The attacks themselves are opposed by inhalations of chloroform and diuresis is encouraged by subcutaneous injections of artificial serum.

4. If the woman is delicate, the cyanosis not very marked, and the attacks not very frequent, chloral should alone be given.

5. The physician should wait until the labor occurs spontaneously and should allow it to end without intervention every time that this is possible.

6. If labor come on spontaneously, but does not end because the uterine contractions are too feeble or too slow, he should end the labor by forceps or version, followed by extraction, if the child is living, or by a cephalotripsy, basiotripsy, or cranioclasy if the child is dead.

7. Before an intervention he should wait until there is complete dilatation, or at least a dilatability of the cervix, in order that the operation may be done without danger,—that is to say, without violence, and consequently without danger for the mother.

8. Induced labor should be reserved for a few exceptional cases.

9. Cæsarean operation and *accouchement forcé* should be absolutely rejected as current methods in the treatment of eclampsia.

He had not resorted to this last manner of treatment, excepting in cases unsuccessful by medical treatment, and when the woman appeared doomed to certain death. In a word, he deems it as an ultimate resource in a hopeless case.—*Annals of Gynæcology and Pædiatry*, January, 1897.

Sudden Death in Pregnant Women and Those About to be Confined.—A multipara, 29 years old, was taken with chills and fever during confinement. Surgical intervention was at once resorted to for the purpose of hastening parturition. On the third day icterus presented itself, and on the ninth and tenth days there were uterine hæmorrhages, of which the cause was inexplicable. On the eleventh day the patient died suddenly, without the appearance of any new symptoms.

Zweifel, who reported this case, was of the opinion that death was due to a pulmonary embolus, but, at the autopsy, no lesion was found, either in the lungs or heart, to which the sudden fatal termination could be attributed. The kidneys, however, were the seat of a subacute nephritis, and Zweifel believed himself justified in regarding death as due to subacute uræmia. Although no other example of this kind is recorded in medical literature, he thinks that this etiological factor should be added to those

capable of causing sudden death in pregnant women or those recently confined. He had already seen death result, under these circumstances, from embolus of the pulmonary artery, cardiac lesions, tumors of the brain and of the bulb, and stricture of the two coronary arteries from arteriosclerosis.—*Le Bulletin Médical*, February 14, 1897.

Prognosis in Pneumonia.—Osler shows that pneumonia is the most fatal of the acute infections of adults in temperate climates, the case mortality varying from 20 to 30 per cent. As to prognosis, age is very important; in children, for instance, the mortality, as quoted in Wells's statistics, is 1.9 to 3.3 per cent., while over 60 years of age the mortality is 50 to 80 per cent. Negroes show a higher death-rate, as a rule, than whites. Kidney disease was found to be present in 25 out of 100 autopsies observed by the author. Healthy adults seldom succumb; thus, in the German army the death-rate in 40,000 cases was only 3.6 per cent. Of the special points of prognostic importance, the degree of fever and the amount of lung-tissue involved are far less important than the toxæmia. Toxæmia has no constant relation to the extent of the lesion, and cases with profound toxæmia show wide variations from the typical clinical picture, while the local features of the disease are often quite overshadowed. Such cases early show cerebral symptoms, and are met with especially in epidemics and among old patients. Sudden death may be due to the action of the specific toxins, which probably affect the heart-centres rather than the myocardium; symptoms of collapse may set in within the first twenty-four hours and rapidly prove fatal. The amount of lung affected, even though extensive, is a much less potent cause of death than toxæmia. The depressing action of the toxins on the cardio-respiratory centres and the weakening effect of pyrexia on the heart-muscle are important factors during the crisis, and help to explain the fact that venesection in pneumonia is not attended with such good results as in emphysema, morbis cordis, etc. Against toxæmia, which is the important cause of the high mortality, there are at present no reliable measures at our disposal.—*American Journal of the Medical Sciences*, January, 1897.

The Action of Saline, Albuminoid, and Acid Substances Upon Calomel.—Since calomel has been introduced in therapeutics, all classic books have mentioned the danger of administering it in connection with saline substances. It is known to be a fact that, in the presence of alkaline chlorides or ammoniacal salts, calomel is transformed into corrosive sublimate. This danger has, however, been combated by various authors, some believing that the cases of poisoning observed are due to a personal tendency; others affirming that no sublimate is found in the digestive tract. In the opinion of the latter, the intoxication is due to a special action of the albuminoid substances upon the calomel (Torsellini). Ottolenghi has undertaken a series of experiments upon this subject, which make the daily use of calomel very interesting to the practitioner. He first proved, by experiments upon dogs, that the classic statements are clinically exact. When giving calomel,

even in therapeutic doses, and afterward making the subject drink saline or chlorhydrated water, much more rapid and intense symptoms are induced than when the calomel is administered alone. Now, it is a question whether the toxic effect in such cases is really attributable to the transformation of the calomel into sublimate. Ottolenghi does not consider it so; he has not been able to obtain this transformation *in vitro* at the temperature of the body, and can, consequently, not affirm in the least that it takes place in the digestive tract; on the other hand, also, the symptoms he has met with in calomel poisoning differ from those generally caused by corrosive sublimate.

It is therefore probable that the calomel only acts while going through the albuminoid substances of the body; it irritates the digestive tube, giving rise, in the first place, to diarrhœa and vomiting and afterward to alterations in the mucous membrane. This toxic and irritating action of the calomel is, however, principally observed when it is in contact with substances which render it more soluble and more absorbable. Among these substances, chloride of sodium and chlorhydridic acid, associated with various albuminoid substances, come first in order. These substances do not act by chemically transforming the calomel into a more toxic agent,—*i.e.*, corrosive sublimate,—but simply by facilitating its absorption in a mass. —*Gazeta d. Ospedali*, No. 1, 1897.

A Constant Symptom of Hysteria.—Strozevski, of Warsaw, reports that when examining hysterical patients he observed, in connection with other characteristic symptoms of this affection, one which, up to the present time, has not been noted. It consists of a complete abolition, or, at least, a very considerable diminution, of excitation upon certain portions of the body, by the contact of a delicate stimulant, such as, for instance, a piece of paper, or a hair.

If, on a healthy person, these spots are touched in this way, a sort of irritation or tickling is produced, with a more or less agreeable sensation. The experiment causes the person to place his hand upon the place subject to the excitation. The most readily excited points are: the external auditory canal and the mucous membrane of the nasal fossæ; then the lower eyelid and the skin of the forehead. The least excitable spots are: the armpits, the skin on and under the knees, and the sole of the foot. In these last-named places Strozevski excited irritation with gentle movements of the fingers.

In hysterical subjects the above experiment does not cause any sensation, or, in some rare cases, a very slight sensation. Gilles de la Tourette ("Traité de l'hysterie," p. 166) makes a brief mention of the abolition of the reflexes by tickling in the anæsthetic regions. Strozevski states that he has studied this symptom in more than fifty cases of hysteria, and that the patients always feel the contact. He has never found a case of hysteria in which this symptom was absent, not even in monosymptomatic hysteria; the same being the case in patients, who, relieved of their sufferings, were

about to leave the hospital. This symptom is equally present in hysteria with depression or with erethism, and in both sexes.

In exploring this irritability in various patients at the hospitals the author occasionally met with its partial diminution; that is to say, a feeble reaction under the armpit, the knee, and upon the sole of the foot, with a violent reaction in the auditory canal and the nasal fossæ. This diminution only occurred in very apathetic subjects, in whom he also observed an abolition or a considerable diminution of the reflex of the conjunctiva. This symptom is doubtless of central origin.—*La Médecine Moderne*, February 17, 1897.

The Degree of Anæsthesia Which Should be Induced Prior to Surgical Operations.—In an editorial the *Therapeutic Gazette* again calls attention to the importance of producing complete anæsthesia before beginning an operation, particularly when chloroform is the anæsthetic employed. In a previous editorial the author emphasized his belief that fright had a very marked influence in increasing the danger which is ever present when chloroform is administered; and in another had pointed out that a possible cause of the large number of fatalities during the early part of the administration of chloroform might be traced to the fact that, combined with fright, there was sent to the heart a powerful reflex through the sensory and pneumogastric nerves as soon as the knife touched the skin of the patient or the surgical operation was begun. This is particularly apt to be the case under chloroform, because it would seem probable that early in the administration of this drug, while there may be some interference with consciousness and some benumbing of the ordinary sense of pain, there is not an abolition of tactile sense, but, on the other hand, rather a condition of excessive irritability of the nerves involved in this sense. Further experience has intensified the writer's belief that his earlier views were correct, and the writings of leading surgeons and anæsthetists the world over seem to point more and more to the correctness of this opinion. As an instance of this he quotes the statements made by Dr. Hewitt, of London, in regard to this question, who had pointed out that one chloroformist will work with light anæsthesia, another with moderately deep anæsthesia, and another with very deep anæsthesia, but the success of Syme in administering chloroform appears to have been principally due to the almost invariable maintenance of a profound narcosis. He had also pointed out what the writer of the editorial has also pointed out in previous contributions to medical literature, that the very development of a profound narcosis tends to render the respiration regular and unhampered; whereas the administration of insufficient quantities of chloroform causes the respiration to be so irregular and uneven that it is impossible for the anæsthetist

during the course of a prolonged operation to make any accurate estimation of the quantity of chloroform which the patient is receiving. In other words, a part of the skill of an anæsthetist lies in his ability to give a sufficient quantity to induce deep anæsthesia without giving enough to produce a condition of danger.

In many instances the surgeon is inclined to regard the early delays in the administration of an anæsthetic as being a useless waste of time. The writer has seldom administered an anæsthetic for a surgeon, or watched its administration for one, without being impressed with the fact that his tendency is continually to hurry the anæsthetist, with the result that the drug is often at first pushed more freely than the anæsthetist himself believes to be proper. In the author's opinion, the most delicate stage in the administration of an anæsthetic is during the period when the patient is passing from complete consciousness into unconsciousness, and, if the patient is well chloroformed, far less skill and knowledge are required to maintain the anæsthesia in a condition of safety than was necessary earlier in the process.

Permanganate of Potassium as an Antidote to Morphine.—Acute poisoning by opiates occurs very frequently, morphine alone having more than one hundred victims per year in England. TORRE reports a case of genuine resurrection obtained by a medicament proposed by Moor,—namely, permanganate of potassium.

The patient was a little girl, 5 years old, who swallowed by mistake a potion containing 0.06 gramme ($\frac{9}{10}$ grain) of hydrochlorate of morphine. Torre, who had been hastily called in, found the child already cold, in a very deep sleep, and almost comatose. There was no reaction to the various excitations; the pulse was barely perceptible; respiration slow, stertorous, with pauses. The gravity of the case did not admit of gastric lavage nor even the administration of an emetic; it was necessary to act at once against the poison itself. Torre immediately made the little patient swallow a solution of 0.20 gramme (3 grains) of permanganate of potassium in 200 grammes (50 drachms) of water, and then gave 3 hypodermatic injections of a 1-per-cent. solution of the permanganate in quick succession. Fifteen minutes later the condition of the child was already better; after she began to regain consciousness another potion of 0.06 gramme ($\frac{3}{10}$ grain) of the permanganate in 120 grammes (30 drachms) of water, was administered in spoonfuls. After several hours she was completely cured.

It is interesting to note in this connection the extreme sensibility of children to morphine. According to Filippi, one-fifth of the toxic dose for an adult will kill a child of 4 years. Zino reports the case of a little girl poisoned by only 2 spoonfuls of syrup of morphine. Paterson and

Kolest cite cases of children having died after the ingestion of a much smaller dose than that swallowed by Torre's patient. It is most probable that this child would also have died if the permanganate of potassium had not been administered.—*Gaz. d. Ospedali*, No. 143, 1896, and *Le Bulletin Médical*, February 17, 1897.

Radial Paralysis.—Professor Potain, in a clinical lecture, reviewed this subject as witnessed in one of his ward patients. It was the case of a man employed as waiter in a hotel, of generally good health, but who had contracted syphilis several years before. He drank rather freely and suffered consequently from dyspepsia and trembling in the hands. One day, four or five months previous to his entry into the hospital, he drank to excess and went home drunk. The following morning he found that his right hand was paralyzed. Motion in the elbow and arm was quite normal, but the hand dropped completely. The patient when questioned was unable to say whether he had lain on the right arm all night or whether he had taken another position. Electric treatment was tried without effect. On his entry to the hospital the condition of the paralyzed limb was as follows: Motion in the shoulder and the elbow was well preserved. In placing the forearm in pronation it was remarked that the hand dropped and that the patient closed the fist with difficulty. When the forearm was bent on the arm the supinator muscles contracted as usual, forming the cord remarked by Duchenne. The different forms of sensitiveness to touch, hot and cold temperature, and to pain were in no way changed as regarded the opposite side. However, sensibility was diminished on the dorsal.

Each time that any cause acts moderately on a limb the weakest muscles suffer the first. The weakest muscles are always those styled "antagonistic," which, contrary to the flexors, never enter in action with a determined object. The extensor muscles of the forearm are comparatively small and weak and poorly nourished; it was not, consequently, surprising that they should be the first to be attacked. The extensors of the arms are more resisting, being more active; their function is to ward off objects, such as blows; the triceps muscle possesses, however, less energy than the biceps and the brachialis anticus. It was for that reason that lesions of the cortex situated in the points corresponding to the origin of the nerve-filaments of the upper extremity were localized in the extensors. In any case, if the paralysis of the patient were of cortical origin, no troubles of the sensibility would have been observed, consequently, the brain could not be incriminated. He would add that paralysis resulting from cortical lesions left intact reflex phenomena and electrical reaction. As had been already said, paralysis of the radial nerve might have a myelitic origin; some examples of this paralysis have been recorded. Professor Hallopeau

reported the case of a locksmith, who was affected with diffuse myelitis, of which paralysis of the extensors was one of the first symptoms. It was, consequently, necessary to ask one's self if the present paralysis should be considered as one of medullary origin. The answer would be decidedly in the negative, as, in the cases of Hallopeau and others, the other extremities were rapidly affected in their turn. It was manifestly a case of paralysis localized in the periphery. That kind of paralysis recognized several causes. There were infectious paralysis and toxic paralysis. Bernhardt published a case of radial side of the thumb, the index and the middle finger corresponding to the distribution of the radial nerve. The posterior muscles of the forearm were atrophied and did not contract under the influence of a strong electric current, while the muscles of the arm and the flexors of the forearm contracted freely. There was nothing to remark about the sight and hearing; however, the right pupil was a little smaller than the left. The digestive organs, the heart, and lungs seemed to be in a normal condition.

The diagnosis was that of motor paralysis affecting the muscles supplied by the radial nerve. It is known, said M. Potain, that this nerve is a mixed nerve, both motor and sensitive; however, as has been seen a number of times, in this man the motor portion was alone touched. The interruption of the current in the radial nerve is due to various causes. It can be the result of a malady of the trunk of the radial or of its branches; it can also be the result of a cerebral or medullary lesion. The first question which imposed itself on the attention of the clinician in the case before them was to determine to which of the above two causes should be attributed the paralysis; it was necessary to find out if it were a paralysis of cerebral or peripheral origin. As to the cerebral origin of the paralysis, it would seem difficult to attribute it to the patient before them, and especially to admit that the lesion was located in the motor zone of the cortex. Yet the incomplete paralysis provoked by physiologists in destroying certain cortical regions of the brain in animals affects the extensors.

Paralysis occurring in the course of typhoid fever and the same lesion had been frequently seen in patients suffering from acute rheumatism. Toxic paralysis was frequently met with in chronic poisoning by either lead, arsenic, or alcohol. Of all these varieties, the influence of saturnism was about the best understood, as the resulting paralysis was the most complete and the most characteristic, although its mode of action was not clearly established, it being difficult to admit that the lead had a preference for the extensor muscles. Perhaps the best explanation of the phenomenon would be found in the relative weakness of these muscles. It would be possible to believe that in the case before them the paralysis was due to

lead poisoning, for the sign given by Duchenne as being characteristic of that affection was present to a greater or less degree; he referred to the persistence of the cord of the long supinator. But it should be observed that in the patient in question the supinator muscles remained insensible to faradization, showing that their power of contraction was weakened, contrary to what exists in saturnine paralysis. In the patient was found another symptom which had been attributed to lead paralysis, but which, in reality, belonged to all cases of paralysis of the radial nerve; it was the tumor on the back of the wrist; that tumor, which had been first remarked by Gubler, consisted of an indolent swelling situated over the corpus, giving the sensation of a thickening of the extensor tendons, and appeared to be due to the constant pressure exercised by the tendons on the mucous bursa by reason of the flexion of the hand. After all those reflexions, and after eliminating different possible causes, paralysis of the radial nerve itself seemed to him to be the diagnosis that imposed itself, but it was necessary to discover by what means the affection was produced. In the way in which the paralysis was observed it was not easy to establish the cause. The patient went to bed quite well and awoke in the morning with a powerless hand. The radial nerve could be paralyzed when wounded or compressed by a tumor, the use of crutches, etc. The influence of cold was not less evident as in the case of facial paralysis. Frequently things happened in that way; a man who had drunk freely fell asleep with his arm thrown over the back of a chair and exposed to the air; when awakened the arm was paralyzed. The idea of radial paralysis *a frigore* was universally accepted, until Panas showed that compression was also an important factor, as was that of alcoholism. In this patient all those causes were, perhaps, combined.

Would the paralysis be temporary or would it remain persistent? If frequently radial paralysis lasted but a short time, it was not rare to see it prolonged several months or even years. In the present case the paralysis had already lasted five months. Should it be considered curable? Such was not his opinion, although it was difficult to say how long it would take for the function of the member to be restored. In any case, to hasten as much as possible the result, two things were necessary: warn the patient against his intemperate habits, and apply galvanic and faradic currents to re-establish the nutritive activity. The alternating use of these two currents would produce in his mind, the best effects.—*Medical Press and Circular*, February 3, 1897.

Public Sanitaria for Consumptives of Moderate Means.—In view of the New York Board of Health's project of a hospital for consumptives the *New York Medical Journal* of January 30, 1897, recalls a plan proposed some time ago by Dr. Achilles Rose, of New York.

The advanced knowledge of the causes of diseases, said Dr. Rose, the progress in sanitary and medical sciences in general, have demanded and demand radical improvements in the construction of our hospitals and sanitaria. Such demand has not been responded to as regards the better knowledge of the etiology of tuberculosis. There are no sanitaria in which

not only the wealthy, but likewise all, tuberculous patients of moderate means may find the best conditions for the cure of their disease. In the present state of our knowledge the consideration in question here is climatic treatment.

Dr. Rose stated that the idea of advocating the establishment of a public sanitarium for tuberculous patients of the working class, large enough to accommodate applicants from all parts of our country, had occurred to him some months before. Dr. Tyndale had assisted him with his knowledge of the climatic conditions of the United States in formulating a plan, and the result of their united labors was now given. They proposed to establish a sanitarium for consumptives upon these cardinal principles:—

1. To give patients the benefit of climatic treatment combined with the most advanced methods of treatment. This was to be in contradistinction to "houses of rest" or "homes for consumptives," where cure was a secondary consideration, and a fatal termination taken for granted. Fully 80 per cent. of consumptives were curable.

2. The acknowledged climatic factors for the cure of tuberculous consumption were *dryness*, *elevation*, and *equability of temperature*. This called for a situation at some considerable distance from the ocean,—the great source of atmospheric moisture,—for an elevation not less than 1500 and not more than 5000 feet above sea-level, and for a more or less southern latitude to insure a reasonable degree of equability of temperature and to avoid extreme cold in winter.

3. What was imperatively needed and universally acknowledged by the medical profession as an absolute necessity was a sanitarium for patients of moderate means and, if possible, within easy reach of all the large cities of the Atlantic sea-board.

The proposition in detail was as follows:—

1. The sanitarium is to be for patients of *moderate* means; the charges for board and treatment not to exceed $5 a week. In course of time, separate accommodations for the wealthier class of patients are contemplated.

2. For patients of moderate means, we rely upon the large cities of the Atlantic coast—Boston, Providence, New York, Brooklyn, Philadelphia, Baltimore, Washington, and Richmond—and the South.

3. The location is not to be farther north than the Alleghany and Blue Ridge Mountains of Virginia and West Virginia,—that mountain-region which forms a boundary between Virginia and West Virginia and extends into Maryland. All other mountain-regions north of that designated, where consumptives are sent by their physicians, either to already existing sanitaria or to shift for themselves, are totally inadequate for four weighty reasons: (*a*) because they are too cold in fall and winter; (*b*) because they are either not cheap enough or when cheap can accommodate a limited number only; (*c*) because they are too far from home for most patients; (*d*) because of lack of systematic treatment in most of them.

To offset these disadvantages, the following suggestions are offered for consideration:—

As to climatic conditions, warm, but not hot, in summer; cool, but not cold, in winter. Relative dryness of atmosphere, due to distance from the Atlantic Ocean. Elevation of from 1500 to 2500 feet, insuring reduced atmospheric pressure—one of the chief factors of successful treatment—and an additional element in the production of dryness of atmosphere.

To recapitulate as to temperature: Elevation secures immunity from excessive heat in summer. A southern latitude guards against excessive cold in winter.

4. The medical profession to be interested, also the leading local, State, and national societies, and all the medical journals.

5. A combination of climatic treatment with present advanced other methods will yield results which cannot fail to attract widespread attention and give satisfaction.

6. To make the institution additionally *self-sustaining* and furnish much needed occupation to a large class of patients who would otherwise be brooding over their misfortunes. To this end a tract of land should be acquired, sufficiently large to enable us to raise the natural products of the soil,—vegetables, fruits, poultry, and cattle,—thus supplying the institution with food of the best kind, on the one hand, and furnishing light occupation to patients, on the other.

Particular attention is drawn to two highly important points in this connection: A fertile soil is to be acquired around or near the institution. The region selected is only twelve hours by rail from New York City.

So far as they were then able to ascertain, some of the most favorable situations were on the line of the Chesapeake and Ohio Railroad. Alton and White Sulphur Springs also were mentioned.

☞ ***Any journals, exchanges, reprints, monographs, or books not sent directly to the editorial office, 28 rue de Madrid, Paris, will not receive attention either in the "Annual" or the "Universal Medical Journal."***

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OF THE

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES,

Issue of 1896.

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28 RUE DE MADRID, PARIS, FRANCE.

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No. 28 rue de Madrid, Paris, France.

(End of Editorial Department of Journal for March, 1897.)

CLEANLINESS IN CATARRH.

The fluid used in cleansing the nasal cavities in both atrophic and hypertrophic rhinitis should be of about the specific gravity of the serum of the blood, and this is acquired in the solution advised by Dr. Pynchon, which is as follows :—

℞ Sodæ bicarb.,	. . . . .	2 ounces.
Sodæ biborat,	. . . . .	2 ounces.
Listerine (Lambert's),	. . .	8 ounces.
Glycerin,	. . . . .	1½ pints.

One ounce of this formula added to a pint of water yields a bland and pleasant alkaline solution with a specific gravity of 1.015.—Dr. Edwin Pynchon, in *Annals of Ophthalmology and Otology.*

THE SUCCESSFUL TREATMENT OF ANÆMIA BY PEPTO-MANGAN "GUDE."

In a paper read by Dr. H. P. Loomis before the New York Academy of Medicine the results were given of a series of experiments undertaken for the purpose of determining the value of Gude's Pepto-Mangan. Believing that the only accurate test of improvement in such conditions as anæmia is an increase in the amount of hæmoglobin, the writer examined the blood before, during, and after the use of that preparation. Eight persons with marked anæmia were selected and careful notes of the cases taken while under treatment. No other medicine was given.

The preparation of iron and manganese referred to is what is known as the "Liquor Mangano ferri Peptonatus Gudes,"—or, as is written on a prescription, Pepto-Mangan "Gude,"—a clear, dark-sherry-colored neutral fluid, non-astringent, and of mild, aromatic taste, prepared by Dr. Gude, a chemist of Leipzig. The dose prescribed was a tablespoonful after meals, in milk or sherry wine. It is claimed that the combination of the iron and manganese with a peptone has decided advantages over the albuminate of iron in its permanency and ease of assimilation. Each tablespoonful of the mixture contained 3 grains of iron and 1 grain of manganese.

In most cases the pepto mangan (Gude) had no constipating effect. Of the eight cases in which accurate notes were kept, all showed a marked improvement both in the increase in the amount of hæmoglobin as well as increase in the number of red blood-corpuscles. The average increase of the hæmoglobin was 2.2 per cent., and of the red blood-corpuscles 1,258,000. It is a well-known fact that in the hæmoglobin of the red blood-corpuscles manganese is always found. Opinions differ as to its significance. At the present time the majority of observers attribute to it an oxygenating function, some claiming that quantitively it is more active than iron. It certainly gives off oxygen more readily than iron. Hence it has long been held that its introduction into the body would increase assimilation.

CONSTIPATION IS HARMFUL.

Although a recent writer has labored to prove that chronic constipation produces no bad results, his statements are directly opposed to the general experience of physicians. At the last meeting of the Mississippi Valley Medical Association, Dr. I. N. Love, of St. Louis, expressed himself exactly according to our belief, when he said: "There can be no doubt that the majority of diseases which afflict human beings, male and female, are largely dependent on constipation." Just in this connection might properly be added the best relief and the best cure for this condition. We refer to Syrup of Figs as prepared by the California Fig Syrup Co. Excellent, economical, effectual.

THE

Universal Medical Journal.

A MONTHLY MAGAZINE
OF THE PROGRESS OF EVERY BRANCH OF MEDICINE
IN ALL PARTS OF THE WORLD.

(Companion Publication to the "Annual of the Universal Medical Sciences.")

Vol. XI. Old Series. PHILADELPHIA, APRIL, 1897. Vol. V. New Series.

Selections from Society Proceedings.

FRANCE.

ACADEMY OF MEDICINE OF PARIS.

Appendicitis and Its Treatment.—DR. LUCAS-CHAMPIONNIÈRE spoke as follows: "I am of opinion that, if in some cases the vermiform appendix is attacked, either primarily or so suddenly that no hesitation is possible, there exist very many cases in which the large intestine has been long diseased and filled to repletion before the morbid condition of the appendix shows itself definitely. In these cases medical treatment may assume a legitimate position. We should observe a certain prudence, and not look upon removal of the appendix as a necessity in most cases nor upon its resection as the undoubted remedy and one devoid of danger.

"It seems hazardous to state, as is frequently the case at present, that the appendix only can be affected, and that, whatever forms may be assumed by the intestinal accidents (typhlitis or perityphlitis, for example), they are always due to appendicitis. It seems likewise to me wrong to state that it matters little whether the appendix is found or not in the purulent foci which are opened; that furthermore the appendix only is to blame, even if it has disappeared, has been eliminated, absorbed, or has become gangrenous.

"Do we not know, from having often observed it, that salpingitis or tuberculous peritonitis may simulate appendicitis? If the abdomen be opened, the appendix is naturally found to be normal. Intestinal irritation and repletion may likewise give rise to symptoms similar to those of appendicitis. Such facts are well known and have frequently been observed by surgeons.

"Consequently it may be looked upon as an exaggeration to say that

the trouble always begins at the appendix. I think, on the contrary, that usually it is the large intestine which becomes filled to repletion, before the appendix in its turn is affected. An appendicitis thus produced may be recovered from; the appendix is not such a dangerous organ as it has been claimed to be. What is more, resection of the appendix may not cure. Symptoms due to colitis remain, and these must be treated in order to obtain a definite recovery. Dr. Roux has demonstrated this fact.

"Intestinal engorgement plays, in my opinion, a primary part, and may explain cases which without that would be incomprehensible. The symptoms due to appendicitis seem to be owing much more to stasis than to its excitation.

"Appendicitis is much more frequent too in cities than in the country. It would seem to be more frequent in England and in the United States,—a condition which is, perhaps, due to a special alimentary hygiene. Familial appendicitis may likewise be explained in such a manner.

"These ideas seem to me important from the therapeutic point of view. When the intestine appears affected the surgeons of to-day endeavor, the first thing, to cause an evacuation of the intestine to occur. Now the physicians carry out the exact opposite. If they suspect appendicitis they give opium, which is an excellent method of rendering an operation necessary before long.

"I think, therefore, that appendicular crises may be avoided by purging, while they may even be brought about by the administration of opium. I consider that even during a crisis the intestine should be evacuated, a purge being given; by such means cases may frequently be radically cured. Consequently evacuation by means of purgatives should be the first therapeutic means employed. It is likewise the first hygienic means. It is not impossible that if appendicitis occur so frequently nowadays it is because purging, which was formerly so considered, is but rarely employed.

"I think, too, that the patients threatened with appendicitis should be moved about. The influence of bicycling upon the production of appendicitis is a mere fancy. Not a single case has been reported. Rather is it the lack of motion—repose—which causes appendicitis.

"This does not mean that appendicitis should never be operated. But an operation should never be performed in a hurry and without very good reasons.

"The operation of appendicitis has a very low mortality, but death does at times occur. On the other hand, abdominal hernia may arise after the operation. Such a comparatively frequent occurrence should not be disregarded.

"Consequently, if the exceedingly acute forms of appendicitis pointed out by Professor Dieulafoy be put to one side, it may be said that in all subacute cases of appendicitis one should be very prudent, and should not forget that mistakes in diagnosis are very easy, and that alongside of true appendicitis may be found pseudo appendicular symptoms, due to typhlitis, perityphlitis, and to intestinal overloading, all of which are affections which belong to medical treatment, but not to operative treatment."

Professor Dieulafoy said: "In an article on intestinal lithiasis I mentioned that in a number of cases I had never discovered appendicitis in patients suffering from intestinal lithiasis. This did not mean that I denied the possibility of the co-existence of appendicitis and intestinal lithiasis, which are due to the same cause,—gout.

"I think, however, that to say that a patient suffering from membranous enteritis and intestinal lithiasis must eventually suffer from appendicitis confuses uselessly the minds of many people.

"Thus, if you take the physicians who have studied the subject of muco-membranous enteritis,—Dr. Comby, for example; and Professor Potain, who, out of 20 patients discovered 1 suffering from this affection, of which he notes 103 cases,—neither of the two have seen appendicitis in such cases.

"Dr. Bottentuit has seen 460 patients at Plombières suffering from membranous enteritis; he has seen them again, two and three years in succession, and has never observed any symptoms of appendicitis. During twenty-seven or twenty-eight years not a single operation for appendicitis has been performed at Plombières, nor have symptoms of typhlitis or perityphlitis been observed. In 1895 Dr. Létienne made a study of muco-membranous enterocolitis; he did not even mention appendicitis. My notes relate to 60 patients suffering from muco-membranous enteritis, and never in them have I seen appendicitis occur. We thus have a total of 700 to 800 individuals suffering from muco-membranous enterocolitis, with thousands of attacks, and not a single case of appendicitis occurring among them.

"I think, then, that I may rightfully look upon patients suffering from muco-membranous enteritis and appendicitis as having diseases existing simultaneously and due to the same cause,—arthritism, or gout,—but that appendicitis is not the necessary termination of membranous enteritis.

"It is now thought that appendicitis may be met with as a complication of many affections; we should not think, however, that appendicitis has absorbed everything altogether. The cæcum is not unattackable by some infection or irritation; chronic typhlitis, muco-membranous or lithiasic in nature, localized in the right iliac fossa, may occur, just as there occurs chronic colitis, either muco-membranous or due to intestinal lithiasis.

"Would you say, in such cases, that the patients are suffering from appendicitis? It would be a serious mistake, but it is one which is often committed nowadays.

"I have expressed the opinion that the first cause of appendicitis is the result of an increase of virulence in bacteria contained in a closed cavity. Dr. Réclus does not look upon the closed cavity as necessary. The inclinations downward of the intestine suffice. How is it possible to reconcile this opinion with those cases in which the appendix is turned upward? In such cases it would be easy, on the contrary, for the appendix to empty itself."

Dr. Réclus inquired: "How about the bend in the appendix?"

Medical Society of the Hospitals.

Appendicitis Due to Influenza.—Dr. P. Merklen reported: "I have just seen three cases of appendicitis, either preceded or accompanied by the general symptoms and catarrhal phenomena of influenza. I should have looked upon it as a simple coincidence if other observers had not recently called attention to the relations existing between appendicitis and general diseases. Influenza, the eruptive fevers, and typhoid fever seem to act by increasing the virulence of the usual micro-organisms existing in the intestine when diseases occur in patients presenting a familial predisposition to appendicitis. In this, perhaps, may be seen an explanation of the epidemics of influenza frequently noted.

"The first case was that of a young man of 18 years, who suffered from recurrent familial appendicitis; the second instance occurred after an attack of tonsillitis due to influenza.

"The second case was that of a boy aged 15 years, who had never shown any abdominal symptoms. When the attack of appendicitis occurred he had already been suffering from influenza for about ten days.

"Finally, in the third case, aged 3 years, the appendicitis began under the form of an influenza localized both in the tonsils and the intestines.

"These three cases, which are unlike as to their clinical evolution, may nevertheless be compared:—

"1. Because of the occurrence of the affection in children presenting familial antecedents of appendicitis.

"2. On account of the evident relations between the appendicitis and the existing influenza due to a change in the seasons.

"We shall lay no further stress on the importance of heredity noted in 40 per cent. of the cases by Roux, of Lausanne, and of the familial predisposition studied by Faisans, Brun, and Talamon.

"As to the influence of general diseases on the development of appendicitis, it may be explained by an increase in the virulence of the micro-organisms contained in a latent state in the appendix. Here should be recalled the comparison made by Sahli, of Berne, between tonsillitis and appendicitis, which he compares to angina of the appendix.

"Like the tonsil, the appendix abounds in closed adenoid follicles, and, like tonsillitis, appendicitis recurs in patients who are predisposed to it. Finally, since tonsillitis is one of the most frequent manifestations of influenza due to a change in the seasons, it is not to be wondered at that appendicitis should occur under the same conditions.

"The appendicitis which occurs under such circumstances does not differ from ordinary appendicitis; there are no special clinical features proper to influenzal appendicitis; consequently the therapeutic indications are those of appendicitis in general. Unfortunately it is not possible at present to establish a prognosis from the clinical form of an appendicitis. One patient will have four or five rather serious attacks of appendicitis, yet his appendix, when removed, will present only light and superficial lesions of appendicitis.

"In another case perforating appendicitis with superacute peritonitis

will occur at once or will follow one attack of simple appendicitis. Clinical observation does not afford a more serious basis for prognosis. It would seem, however, that perforation of the appendix occurs more frequently during a first attack than its recurrent appendicitis. However, if in such cases much may be hoped for, it is not possible not to fear.

"The future of any appendicitis is uncertain, and it is this which has led many surgeons to advise, in every case where diagnosis is certain, the preventive removal of the appendix. However harmless this operation may be, it is nevertheless an important one, and the moment has now come to decide whether it must be received with no more objections than we make to the radical cure of hernia. Perhaps a serious inquiry into the precursive symptoms of grave cases of appendicitis—the character, form, and duration of the first attacks—would allow the indications of this operation to be more precisely stated, and would enable the operation to be avoided in unnecessary cases.

"I look upon the operation as absolutely indicated

"1. In perforation of the appendix.

"2. In a recurrent attack of familial appendicitis.

"3. In recurrent appendicitis interfering with the career of a young man."

Dr. Rendu said: "I am at one with Dr. Merklen as to the groundwork of his remarks. When during an epidemic of influenza intestinal symptoms are observed in a patient there is a tendency to call it intestinal influenza; thus appendicitis may be attributed to influenza. I am rather of the opinion that in such cases there has occurred appendicitis, having begun with general symptoms and infectious enterocolitis."

Dr. Florand stated: "These operative indications are always difficult, for often we are unable to distinguish what belongs to appendicitis. Some time ago I caused an operation to be performed on a young man suffering from an attack of recurrent appendicitis following muco-membranous enteritis, believing that thus the frightful pain of which the patient complained would disappear. This did not occur; the pain persisted, showing that it was due to the muco-membranous enteritis and not to the appendicitis."

Dr. Merklen declared: "I look upon the operation as necessary in recurrent appendicitis."

Dr. Moizard remarked: "During a first attack I advise expectation; if a second attack occur, I advise an operation."

Dr. Siredey said: "It is exceedingly difficult to lay down precise laws for the therapeutic indications, inasmuch as we can never judge of the state of the appendix from the symptoms. I have seen a patient in whom there had occurred only attacks of appendicular colic and in whom a premature diagnosis of hepatic colic had been made, but who was operated when the diagnosis was corrected. In this case the appendix had not become adherent, but was much affected. Another patient was operated on after having manifested symptoms of appendicular colic, and the lesions of the appendix were considerable and perforation imminent. On the other hand, I could quote observations where exceedingly serious symptoms

were present, while an operation revealed a comparatively little affected appendix."

Dr. Merklen remarked: "The difficulty is to know on what to found the prognosis as to the future. Dr. Moizard says that a second attack must be waited for; do not the same dangers exist after the first attack?"

Said Dr. Rendu: "In corroboration of the opinion of Dr. Siredey I may cite the case of the son of one of our brothers; in this young man I was able to ascertain the presence of two very slight attacks of appendicular colic; notwithstanding the mildness of the affection, I advised operation on account of the recurrence, and was wise in so doing, for we found an appendix which was deeply ulcerated throughout its entire length."

Dr. Siredey added: "I might cite two other personal observations in which there occurred perforation of the appendix, notwithstanding the fact that the clinical symptoms were not serious. One of these patients came into the hospital with symptoms of appendicitis,—moderate fever and a swelling. These symptoms improved rapidly, and four days later the patient seemed cured and asked, with insistance, for food; during the evening the patient manifested all the symptoms of peritonitis due to perforation and died in a few hours."

Dr. Merklen observed: "This discussion may be summed up briefly by saying that we agree as to the necessity for operating after a second attack of appendicitis, but that it must yet be decided what must be done after a first attack of appendicitis."

Dr. Galliard said: "It would, I think, be useful to throw light upon the discussion by making out as extensive a list as possible of the results of operation, and of the fate of non-operated cases."

Professor Hayem added: "Such a list would be, indeed, useful, but the surgeons should be asked to state what has been the result of operations done secondarily, between attacks, and of urgency operations."

Dr. Rendu replied: "All cases which I have caused to be operated on between attacks have recovered; on the other hand, all cases that I have caused to be operated on at once have ended fatally."

The Difficulty of the Diagnosis of Appendicitis in Hysterical Subjects.—Dr. Rendu declared: "When examining a patient suffering from appendicitis great attention should be paid to the unequal susceptibility shown by various individuals, as some react but little, while others, on the other hand, show reflex symptoms of great intensity. The two following cases prove that very slight appendicular lesions in hysterical patients may be accompanied by extremely alarming symptoms.

"The first case was that of a young Breton girl, aged 18 years, who, before coming into my service, had been treated in Dr. Brissaud's service for symptoms similar to those noted by me. Dr. Brissaud kindly gave the following information concerning the patient: When she entered Dr. Brissaud's she was suffering from pain limited to the cæcal region, dating from three or four days back, and corresponding with an oblong mass of about the size of the fist, directed downward and inward, larger above than below, somewhat dull to percussion, doughy to the touch, and exceedingly sensi-

tive to pressure. At the same time there were present constipation and persistent vomiting or rejection of food, dating already three or four months back. Dr. Brissaud looked upon it, at first, as an attack of appendicitis, but on noting that the incoercible vomiting, which had already lasted for four months, had not modified to any appreciable degree the general condition of the patient, he looked upon the iliac symptomatic complexus as a temporary symptom due to a neuropathic condition.

"Dr. Monod, on being consulted, advised putting off an operation, and, after a few days, the so-called appendicitis disappeared and was replaced by left hemianæsthesia, following a nervous attack which occurred during the night. The vomiting persisted, however, with secondary loss of appetite, and the general condition became worse. It became necessary to feed the patient by means of the stomach-sound, and eventually by rectal injections. Meanwhile the appendicitis re-appeared, then disappeared, on each occasion with identical symptoms, but with this peculiarity,—that at each attack the cæcal swelling appeared less voluminous, while the spontaneous or provoked pains in the iliac region were more acute.

"The attacks of pseudo-appendicitis thus re-appeared five or six times; finally, no more attention was given to them. During one of the attacks anuria was present, with sharp, abdominal pain. This pain would have led to a diagnosis of peritonitis had its real nature not been known. It was merely the hysterical symptom, termed by the English *spurious peritonitis*, which frequently accompanies the localized or general tympanitis of hysteria major.

"Dr. Brissaud states that the patient left his service quite cured, and cured by his psychotherapeutic treatment, which the other patients in the service had spontaneously taken upon themselves to carry out. The affection was thus a *phantom appendicitis*.

"The patient left Dr. Brissaud's service and three months later entered my service in consequence of a new attack of pseudo-appendicitis. I was totally unaware of her former presence in the service of Dr. Brissaud, and on account of the alarming symptoms had the case operated. We found a congested, but non-ulcerated, appendix; it was a simple follicular appendicitis. Hysteria thus had exaggerated the symptoms which this slight appendicular lesion would have caused in another patient; the peritonism was due to the neurosis.

"After the removal of the appendix the patient recovered completely.

"In a second case hysterical symptoms simulated a perforation of the stomach (sudden shock, suppression of urine, great abdominal pain, vomiting, hiccough, and abundant hæmatemesis). Operation was performed with the idea of finding a perforation of the stomach, but this latter organ was healthy; the appendix, which was large, was removed.

"As in the preceding case the affection consisted in an extremely slight appendicitis characterized only by appendicular congestion, but the nervous condition had considerably exaggerated the symptoms usually found in such cases. Since the operation the patient has remained completely cured."—*La Médecine Moderne*, March 24, 1897.

UNITED STATES.

New York Academy of Medicine.

The Diagnosis and Management of Syphilitic Brain Diseases.—E. C. Spitzka, of New York, considered the diagnosis between genuine melancholia and a somewhat similar condition observed in the initial period of syphilitic dementia. The true melancholiac was sad because he could not be anything else; the other was depressed because he was unable to attend to his business and suspected that his friends realized this. The former suffered from insomnia, while the melancholiac of the initial period of syphilitic dementia slept perfectly through the night, and often also through the day. The true melancholiac was universally neglectful of his dress; the other was very particular about certain parts of his dress and negligent about other portions. The true melancholiac shrank from company; the syphilitic melancholiac was irritable, and his symptoms varied greatly from day to day. The syphilitic finally drifted into a condition in which slight, but characteristic, changes in the medulla oblongata were found. The diagnosis was important, because proper treatment in the early stage might prove radically remediable. In his experience, the common error had been that of too exclusive reliance on the iodides. His own initial treatment was always with mercury, preferably by inunction. These patients were usually over 45 years of age, and suffered from renal insufficiency.

F. R. Sturgis, of New York, thought that these patients often threatened suicide, but seldom attempted it, for in syphilitics the power of coming to a decision was lost. Their melancholia developed apparently from totally inadequate causes, and they often exhibited sudden alternations from extreme depression to a more natural temper. Unquestionably mercury was our mainstay in these cases, but the iodide played an important part, because its action was very much more rapid than that of mercury; it would often hold in check the more serious subsequent symptoms, and the rapid improvement that it caused in the symptoms often settled the diagnosis. The time and the doses of an iodide were the most important points in the successful treatment of nervous syphilis. An amount of from 300 to 600 grains of iodide of potassium in the twenty-four hours would make all the difference between failure and cure.

L. D. Bulkley indorsed the views of the reader of the paper as to the value of a certain amount of mercury with the iodide of potassium. It enabled us to accomplish the same result with a greatly diminished dose of iodide. It was his custom to prescribe inunctions, or one or two mercurial baths a week, along with the use of the iodide internally.

Williams said that, if in these cases of melancholia the temperature remained subnormal the greater part of the time for several successive days, we were justified in suspecting late syphilis. Absolute rest in bed for from three to six days was important, and during this time it would be found that the temperature would gradually rise.

D. F. Sherman also indorsed the view that it was important to use mercury in liberal doses, along with the iodide.

Spitzka had intended to state that these syphilitics often contemplated suicide, but only actually committed it on the impulse, and without premeditation. Although gastric irritation was quickly produced in ordinary persons by large doses of iodide, in the cases under discussion very large quantities of the iodide not only were tolerated, but often seemed to act like a charm.

The Treatment of Locomotor Ataxia.—Landon Carter Gray, of New York, stated that a study of seventy-seven cases of locomotor ataxia recorded in his case-books had led to one conclusion,—that in every instance the symptoms had been improved by treatment, and in a few the improvement had been startling. In most of them it had been satisfactory. In his opinion, rest was the most important part of the treatment, for every muscular movement involved a strain on the diseased parts. In the severer cases the patient should be in bed for weeks, whereas in the milder ones a few hours a day in bed might be sufficient. The amount of rest required varied greatly with different individuals. Whatever might be the rationale, it was certain that antisyphilitic treatment would often have a most startling effect on the progress of the case.

Erythromelalgia.—Henry L. Elsner, of Syracuse, reported a case of this very rare condition. It had occurred in a washerwoman, and the first symptoms, headache and flushings of the face, had developed in 1893. Subsequently she complained of pain in the hands, and soon afterward a maculopapular erythema developed on the hands. The pain was so exquisite that she described the sensation as that of being "consumed by a living fire." Gradually erythematous spots formed on the knuckles and tips of the fingers and thumbs, the lesion being severest on the thumbs. Curiously enough, while this erythema was present, there developed a true Raynaud gangrene on the tips of the thumbs, with a gradual separation of the distal phalanx. The only explanation that he could offer was that, as a result of the prolonged distension of the blood-vessels, the intima had become thickened and the circulation sufficiently obstructed to cause this gangrenous process.

Strophanthus.—Reynold W. Wilcox, of New York, presented the result of twelve years' study of this drug. He said the reason that strophanthus had been considered by some observers to be uncertain was that there were four distinct species of strophanthus. His own observations had been made with *Strophanthus Kombé*, the same preparation as had been used in Fraser's original investigations. He drew the following conclusions: 1. That strophanthus increased the muscular action of the heart by direct action on the muscle itself. 2. That it operated more rapidly than any other cardiac drug. 3. That it practically had no effect on the size of the blood-vessels. 4. That it regularly favored elimination by the kidneys. 5. That unless too frequently repeated, it had no cumulative action. 6. That it was unlike the other cardiac drugs in acting only on the muscle of the heart. 7. That it was about three hundred times as strong as the same weight of digitalis, and three or four hundred times as powerful as the

same amount of caffeine. He recommended the use of strophanthus instead of digitalis in cases in which digitalis usually acted badly, in which the prolonged use of it caused dangerous vascular spasm.

The Relation of Impure Drinking-water to Disease, and the Cure and Prevention of the Latter.—George Blumer, of Albany, argued that the most common mineral contamination of water was lead. This was dissolved by acid water while passing through lead pipes. Of the diseases due to animal organisms might be mentioned malarial disease and amœbic dysentery, although the cause could not be isolated, and the natural habitat was not known. The evidence of the water-borne origin of malarial disease was not very conclusive. Of diseases due to vegetable organisms might be mentioned typhoid fever, Asiatic cholera, and certain diarrhœal diseases. Although these diseases were not always water-borne, the evidence that they might be so transmitted was conclusive.

Rowland G. Freeman, of New York, said that the greatest danger was from milk contaminated by impure water. It had not been until the publication of the article of Dr. W. A. Kahn, of the Wesleyan University, in 1894, that it had been demonstrated that oysters might prove the means of disseminating typhoid fever. It was now known that the typhoid bacilli would live longer in oyster-juice than in water, and longer in water contaminated by sewage than in clean water.

T. B. Carpenter, of Buffalo, stated that, although as far back as 1839 London had been supplied with water purified by sand filtration, it was only quite recently that the real efficiency of this method had been demonstrated. He cited experiments on this method of purification, showing that 97.58 per cent. of the bacteria were removed. No mechanical filter could be considered efficient unless used in connection with some coagulant, such as alum. As yet but meager reliable data were at hand concerning the efficiency of these mechanical filters, but, so far as our present knowledge went, it was pretty clear that this method possessed superior advantages.

E. K. Dunham, of New York, stated that one of the best methods of preventing the pollution of water was by allowing putrefactive changes to occur in the superficial layers of the soil, in the presence of an abundance of oxygen. When thoroughly carried out, this process should destroy all pathogenic germs, and the method was applicable on a small scale to private country residences, thus doing away with the obnoxious cess-pool.

The Life-history of the Typhoid Bacillus Outside of the Body.—F. C. Curtis, of Albany, said that the typhoid germs remained indefinitely in the soil, but probably did not retain their vitality for many days in sewers, cess-pools, and privy-vaults. These bacilli retained life for a long time in running water, and were not destroyed by freezing. Aërial transmission of the disease was possible only when the germs were taken into the digestive tract.

Typhoid Fever in Children.—W. P. Northrup, of New York, stated that not a single case of typhoid fever had been known to occur among the many thousand children that had been under the care of the New York

Foundling Asylum during twenty-five years, and he had never met with the lesions of this disease in two thousand autopsies made upon children under 3 years of age. Out of four hundred cases of typhoid fever in the epidemic at Stamford, there had been only four among little children.

The Importance, and a Practical Method, of Disinfection of the Excreta of Typhoid Patients.—W. Gilman Thompson, of New York, said that a 1-to-500 solution of corrosive sublimate, rendered acid to prevent precipitation of the mercury as an albuminate, constituted a cheap and powerful disinfectant, but it was objectionable in cities on account of its injurious action on the plumbing. A 10-per-cent. solution of carbolic acid could be substituted. The bed-pan should contain at all times at least a pint of the disinfectant solution, and should be kept covered. After each stool the patient's perineum should be cleansed with a 1-to-2000 corrosive-sublimate solution, and thermometers, rectal tubes, and syringes should receive careful attention, as should also the linen. In the country the stools should be mixed with sawdust, and cremated or buried in a trench four feet deep. The disinfection of the stools should be continued for at least ten days after the temperature had permanently returned to the normal.

William T. Sedgwick, of the Massachusetts State Board of Health, spoke of the danger of bathers and picnickers contaminating water-supplies. He said that the city of Lawrence had furnished an interesting object-lesson regarding the prevention of typhoid fever. Formerly it had had an unusually large number of cases of typhoid fever, but since the installment of a municipal filter in connection with the water-supply the number of cases of typhoid fever had been quite insignificant.

Double Murphy-Button Anastomosis.—J. H. Glass, of Utica, reported a successful case of this kind, in which the obstruction was due to a sarcoma of the colon. In his opinion, no method was so rapid and so certain as that with the Murphy button.

Some Cases of Diseases of the Testicle.—L. B. Bangs, of New York, reported five cases illustrative of difficulties of diagnosis. He said that many cases of neuralgia of the testicle might be due to unsuspected accumulations of pus between the testicle and the cord. In all cases of disease of the testicle in which there was doubt as to the nature of the process one should resort early to exploratory incision.

A Rare Complication of Acute Rheumatism.—Eugene Beach, of Gloversville, reported a case in which orchitis had developed after a man had slept in a damp bed. This was followed by rheumatic pain in the muscles of both legs, and later by mild cystitis and urethritis. Then there was an exacerbation of the orchitis, quickly followed by an attack of acute articular rheumatism. Careful search had failed to show any infection.

Notes of Cases in Suggestive (Hypnotic) Therapeutics.—H. S. Drayton, of New York, reported some cases illustrative of the power of hypnotic suggestion,—a power which he considered to be almost unlimited in many disorders.

William James Morton, of New York, said that a long experience with hypnotism had led him to the belief that it was a pernicious practice, in that it lessened one's power of resistance, and so degraded the patient both morally and intellectually.

Drayton replied that, if such an unfortunate result ensued, it was the fault of the hypnotizer; he was sure his patients would all say that the will had been strengthened by his method of employing hypnotism.

The Management of Club-foot.—A. M. Phelps, of New York, in a few remarks on this subject, said that proper manipulation and gradual supercorrection of the deformity should be begun as soon after birth as the condition was recognized; that where this treatment did not succeed, by the time the infant had reached the age of 3 months, it was best to perform his "open operation"; that where there was actual bone deformity it might be necessary to divide the neck of the astragalus, perform a cuneiform osteotomy on the os calcis, remove the cuboid and scaphoid bones, or even perform Pirogoff's amputation. He said that if the foot were supercorrected the weight of the body subsequently would prevent the tendency to relapse. Out of the five hundred "open operations" that he had done, it had only been necessary to resort to osteotomy seventeen times.

Stricture of the Rectum; its Etiology and Treatment.—Joseph M. Mathews, of Louisville, read a paper with this title, which was, in large part, a reply to certain criticisms that had been published by Dr. Kelsey. He stated that after an experience in the treatment of over three hundred and sixty cases of stricture of the rectum he had come to the conclusion that benign strictures of the rectum were very infrequent. He had not met with a single case in which such a stricture was due to dysentery, and from a pathological stand-point it could not often be the seat of such a stricture. Syphilis, in his opinion, was the cause in about 60 per cent. of the cases.

The Surgical Treatment of Cancer of the Rectum.—Daniel Lewis, of New York, did not consider an operation justifiable unless there was a fair prospect of being able to remove the disease completely. He looked upon the old Volkmann operation as less dangerous, and, therefore, preferable to the Kraske operation. In women he would operate by way of the vagina.

The Proper Method of Treating Internal Hæmorrhoids.—Robert T. Morris, of New York, characterized the method of injecting piles with carbolic acid as very dangerous, because of the liability of septic emboli being carried from the open veins to the liver or heart. The same objection applied to crushing methods. His favorite method of treatment was by excision of the piles and suture of the incisions.

Prolapse of the Rectum.—B. Farquhar Curtis, of New York, referring to the sacral operation, said that the danger consisted not in the resection of the sacrum, but in the fact that the bowel must be attacked high up. In epithelioma of the anus the patient sought treatment early, whereas a ma-

lignant tumor developing two or three inches up the bowel might exist without symptoms for some time, and hence the operation would not be performed until the glands had already become involved. In spite of the extravagant pretensions that had been made for colotomy, it could not be denied that it prolonged life in cases of malignant disease.

James P. Tuttle, of New York, said that he had never seen evidence that had convinced him that stricture of the rectum in syphilitic cases ever occurred without previous syphilitic ulceration. Resection of the rectum was the only safe method of curing connective-tissue strictures. The prognosis in malignant disease depended on the extent to which adjacent organs and tissues were involved, rather than upon the height to which the disease had reached.

Acute Inflammation of the Gall-bladder.—Maurice H. Richardson, of Boston, stated that he had seen only six cases of this condition; yet, in the acute form, the symptoms were so sudden and urgent as to demand immediate operative interference. The pain was not infrequently at some distance from the region of the gall-bladder, and was associated with vomiting, abdominal distension, and fever. The condition was often mistaken for appendicular inflammation. The treatment should consist in free incision and drainage of the gall-bladder. The prognosis was fairly encouraging if an operation were resorted to early.

The Orthopædic Treatment of Spastic Paralysis in Children.—Samuel Ketch expressed the view that patients affected with spastic paralysis were those whose mentality was *nil*, diminished, or normal or nearly so. The treatment should include special education of the muscles. He had never seen any advantage from the use of electricity in any form. The constant current might have a good sedative effect. Massage had but little value in these cases. Mechanical treatment was directed to improvement in locomotion or reduction of deformity, and produced its best effects in patients whose intellects were least impaired and in deformities and disabilities of the lower extremity, especially when the judicious use of the superincumbent weight corrected the elevated and inverted feet. Tenotomy was certainly a useful resort. Opposition to it was based on theoretical grounds and the results in patients who were not proper subjects for operation or whose after-treatment had been neglected. With growth there was a lessening of the spastic element, and the degree in which this had been replaced by a fixed deformity should be considered in undertaking mechanical or operative treatment. Patients in whom the deformity was the result of marked spasm resisted treatment or were liable to relapse. Apparent mental improvement occurred, with better locomotion and general melioration.

Frederick Peterson thought that a great deal could be done by education of the muscles by efforts of the will, by active, not passive, movements, as, for example, using the typewriter or playing the piano in the case of a paralyzed hand.

William M. Leszynsky had seen no benefit from electricity. More could be obtained from efforts of the will. Persistent efforts to walk were

sometimes sufficient to restore the function of the muscles. In cerebral palsy, of course, little could be done.

Reginald H. Sayre has found faradization a good means of giving gymnastic exercises to muscles not under the control of the patient.

After various tenotomies to place the parts in normal relation to each other, we could do a great deal in the way of educating these muscles.

V. P. Gibney argued that in the prevention of these deformities further advance was to be sought in researches into the underlying neurological condition.

H. L. Taylor thought that benefit was to be derived, not only in children, but also in adults, from mechanical treatment and tenotomy. The contraction was not easy to control by braces; it would return when the brace was removed. Tenotomy not only made it possible to retain the foot in position, but had a decided effect upon the spasm. The tendon was cut for the specific purpose of relieving the spasm. A very marked mental improvement followed this treatment.

H. W. Berg observed that, since many of these cases accompanied idiocy, education of the muscles would apply most aptly. The sense of sight should be developed by bright colors, that of hearing by the use of bells, and increased motor ability by repeating certain motions a great number of times. Years of patient toil might thus be well spent. He was rather in favor of galvanism. In the results of meningeal hæmorrhage, education of the muscles was "love's labor lost," and, while tenotomy here had a place, the treatment was radically different from that of patients in whom idiocy accompanied spastic paralysis.

Newton M. Shaffer said that, so long as approximately normal movements could be obtained by passive motion, tenotomy was not needed. In time, however, the spastic contraction became a contracture with permanent deformity. It was only where these changes were observed that tenotomy was indicated, and the operation was then followed by much better results than when it was done at an earlier stage. Radical improvement occurred with growth, as the result of the general changes which occurred every seven years. For these reasons the time at which an operation should be performed was an important question, and a delay of two or three years sometimes secured a distinct advantage, passive exercise being practiced in the meantime, half an hour or an hour each day.

Dr. Peterson said that in these cases the paralysis was not to be considered as the result of the idiocy. Degrees of idiocy, palsy, and epilepsy were all symptoms of cerebral injury received before or during parturition or within two or three years after birth. Idiocy was a symptom often associated with spastic paralysis. In idiots we found sclerosis, atrophy, and cysts, but not hæmorrhage. In spastic paralysis, while we found meningeal hæmorrhage, there were few cases in which deficient development of the brain was found post-mortem. In these cases there was no irritability of the spinal cord, but there were rather exaggerated reflexes from cutting off of inhibition. Mental improvement often followed education of the muscles, but, where it attended any muscular change from contraction to

contracture, it was probably a coincidence. As these muscles did not react so well with the galvanic current, the faradic would give them better exercise. The former often irritated the skin, but children rather liked the latter.

Dr. Ketch said that the benefits of special education of the muscles were best obtained in the schools conducted for the instruction of the feeble-minded.—*New York Medical Journal*, March 13, 1897.

College of Physicians of Philadelphia.

Binasal Hemianopsia.—Clarence A. Veasey reported the case of a woman, aged 54, who had noticed gradual failure of vision for five months, and, two months earlier, slight attacks of nausea and vomiting for three weeks. At the time of the examination there were slight tremor and vertigo. Three weeks before coming under observation the vision suddenly declined in R. to l. p. and in L. to $\frac{1}{180}$. There was no history of syphilis or tumors and no impairment of hearing, speech, or memory. Wernicke's hemianopic pupillary sign was present. Tn. The ophthalmoscope showed a low grade of double neuroretinitis, more marked in R., indicating a long-existing interstitial optic neuritis. The blood and urine were normal. Binasal hemianopsia was the prominent symptom. In the R. the macula was included in the blind half and the line of demarcation between the blind and preserved fields was distinctly vertical. In the L. the macula was included in the preserved half, which expanded in its upper part toward the nasal side. The field for red in the L. was fan-shaped and included the macula, and here the blind portion encroached slightly above and below on the temporal side. Both fields were concentrically contracted. Central vision improved for a short time under treatment, but the fields became more and more concentrically contracted and preserved their hemianopic character. Death ensued within a few months. An autopsy, which was refused, would have probably shown a bilateral inflammation of the trunks of the optic nerves in front of the chiasm extending backward to the chiasm and more marked symmetrically on each side of the latter.

G. E. de Schweinitz had seen several cases. The first, originally described by Dr. H. C. Wood, had faint light-perception in one eye and in the other the field of binasal hemianopsia. The second was a girl of 16, who had symptoms of basilar meningitis, high choked discs, vomiting, nausea and staggering gait, intense headache, and loss of both nasal fields. The third case, a girl of 20, was one of brain-tumor. She also had high choked discs, very imperfect vision, and binasal hemianopsia. After death a large basal tumor was found. The last of the cases is an illustration of the symptom occurring in spinal-cord disease like that reported by Bull and Lang. A miner, 55 years old, a hard drinker, with a specific history, had blanched discs, spastic gait and exaggerated knee-jerks, and binasal hemianopsia. The lesion probably was an interstitial change in front of the chiasms. He is uncertain whether these cases ought to be classed among the hemianopsias or in some other category.

G. C. Harlan states that there was at one time a good deal of discussion of binasal hemianopsia, with reference to its bearing upon the theory of semidecussation in the optic chiasm. It is impossible to explain it by any single lesion and this fact has been alleged as a weak point in the semidecussation theory. Bitemporal hemianopsia can be accounted for by a lesion in front of the chiasm, involving the inner halves of the optic nerves, or behind the chiasm involving the inner halves of the optic tracts; but no single lesion can be so placed as to satisfactorily explain binasal hemianopsia. In preparing a paper on hemianopsia some years ago he was unable to find a detailed account of any case of binasal hemianopsia quite free from complication, and Schoen had stated that there was at that time no entirely incontestable case on record. The speaker believed that this statement still holds good,—that there is no case with similar fields on each side sharply defined by vertical lines of demarcation, such as we meet with in homonymous bilateral hemianopsia.

The Application of the Rœntgen Rays in the Diagnosis of Foreign Bodies in the Vitreous.—G. Oram Ring exhibited two radiographs showing the presence and the approximate location in the vitreous of a piece of metal, and the patient upon whom Mule's operation had been performed. Eighteen months previously a piece of steel had entered the right eye through the cornea, producing a tear in the iris, cataract, and complete blindness. The eye had become subject to attacks of ciliary inflammation, and recently the left eye had shown signs of sympathetic irritation. The steel surrounded by exudate could not be dislodged from its position in the ciliary body by the Hirschberg magnet, and evisceration was performed and the glass sphere inserted. Very little reaction followed.

H. F. Hansell stated that a case he had reported in the discussion in December was exposed for eight minutes, and the skiagraph shows exactly the position of the foreign body in relation to the shadow of the bone; but the picture shown demonstrates what his does not,—namely, that the Rœntgen rays will cast the shadow of a piece of metal lying in any part of the vitreous. This method is extremely valuable and now almost essential in the diagnosis of the presence and composition of foreign bodies.

George Friebis stated that he preferred decidedly evisceration to enucleation when feasible, and was gratified to find that the reaction could be insignificant.

C. A. Oliver stated that it must be remembered that should the vitreous contain blood-clots the magnet must be brought almost in contact with the metal before the latter can be moved from its position; and, again, should the metal, during its passage through the vitreous, fall from the magnet, it may pursue a direction entirely different from that in which it had been carried by the magnet.

Preservation of the Eye, with Good Vision After the Removal of Fragments of Steel from the Vitreous by Means of the Magnet.—Edward Jackson exhibited two cases of this kind. Both patients were young men injured by fragments from hammers. One had been shown to the section shortly after the extraction was done, three years ago. The wound of entrance

through the insertion of the internal rectus muscle was enlarged and an incision made in the vitreous with the Graefe knife in the direction of the foreign body, which lay on the retina at the bottom of the eye. The operation was followed by some detachment of the retina, retinitis, and a general hyalitis. At one time the vision was reduced to counting fingers within one foot, but it slowly improved until now it equals $\frac{1}{2}$ partly, although the pigmentation and exudation in the retina, even in the region of the macula, are quite marked and a slight local detachment exists at the original site of the foreign body.

In the second case the chip of steel entered through the cornea and iris, close to the periphery. Hæmorrhage at first prevented its exact location, and the injury was treated with atropine and ice, locally, and rest in bed. In two days the media were quite clear. The lens, the edge of which could be seen through the coloboma in the iris, entirely escaped injury. The piece of steel was found lying slightly in front of the retina (3 to 4 D.), two disc diameters below the optic nerve. An incision was made between the inferior and internal recti and the foreign body extracted with the magnet. A protruding portion of the vitreous was clipped off. Ten days later the eye with its correcting lens, $+ 3^{s} \bigcirc + 2.75^{c}$, had nearly equal vision with the other, which required a similar glass. At the end of the month there remained some opacities in the vitreous and a marked area of choroidal atrophy in the part adjoining the part from which the foreign body had been removed. This atrophy was distinct ten days after the injury. Vision equal in the two eyes.

Operation for the Cure of Cicatricial Ectropium from Antral Disease.—Dr. Oliver gave the details of such a case. The case was that of a 14-year-old girl who in infancy had had an alveolar abscess in the right upper jaw, followed by the formation of a fistular sinus, which remained open and discharged until she was 9 years old. At the time of examination it was found that the entire inferior orbital margin was lost. The overlying skin and superficial tissues were dragged deeply inward into a series of bands, while the lower lid was so everted that the lower *cul-de-sac* was visible. The operations pursued were those of first freeing the bands subcutaneously by a tenotome introduced far out in the temporal region, followed by three repetitions of Dieffenbach's operation along a Szymanowski cut, and later the excision and filling in by suturing, of a triangular area in the upper temporal region, thus almost entirely relieving the deformity without the appearance of any external cicatrices.

Atropine to Reduce the Tinnitus Aurium Caused by the Use of Quinine.—Dr. Aubert has noted that, in three patients who had formerly suffered from tinnitus aurium due to quinine, the symptoms could, at least, be considerably diminished by adding atropine to the quinine. The amount of atropine prescribed by Dr. Aubert amounted to 0.0005 gramme ($\frac{1}{120}$ grain) daily.—*La Médecine Moderne*, March 24, 1897.

Selections from Reports of Members of the Annual's Staff of Correspondents.

Norway.

DR. F. LEVISON,
REFERENT FOR DEN DANSK LITTERATUR VEDRØRENDE: ALMINDELIG MEDICINSK PATHOLOGI OG THERAPI, DERI INDBEFATTET, NERVE- OG SINDSSYGDOMME, PÆDIATRIK, OBSTETRIK, GYNÆKOLOGI, HYGIEINE, DEMOGRAPHI, RETSMEDICIN, PATHOLOGISK, ANATOMI, BAKTERIOLOGI.

Alle medicinske Böger, Disputatser, Monographier, Tidsskrifter, etc., der adkomme i Danmark bedes sendt til

DR. LEVISON,
Norrevoldgade, 18,
Köbenhavn.

Cases of Endothelioma.—Two cases of this affection are described by FRANCIS HARBITZ, one being located in the peritoneal cavity, with infiltration of the mesentery, omentum, etc.; the other had its origin in the membranes of the spinal cord and extended to the cerebellum and the fourth ventricle. The latter tumor grew very rapidly, causing death at the end of two months and a half. The microscopical structure of these tumors is fully and minutely represented by reproductions of microscopical sections.—*Norsk Magazin for Lägeordenskab*, p. 1189, 1896.

Epidemic of Rheumatic Pains.—A. BACKER, in July, 1896, witnessed an epidemic characterized by rheumatic pains of the musculature of the chest and abdomen. The affection developed suddenly with either fixed or fugitive pains, which were increased by the movement of or pressure upon the affected region. There was fever (39° to 39.5° C.—102.4° to 103.2° F.), cephalalgia, uncomfortable sensations in the limbs, but no exanthema. In several cases there was either pleurisy or pericarditis; pneumonia was present in two instances, and in two others there was orchitis. The duration of the disease was from three to six days, but relapses occurred frequently. Four hundred and seventy cases were reported to the physicians, but many cases escaped the notice of the authorities. On several farms all work had to be suspended, all the hands being ill. No deaths were reported. A similar epidemic was described in 1872 by Dr. Daae, of Norway.—*Norsk Magazin for Lägeordenskab*, p. 1234, 1896.

Local Asphyxia with Functional Brain Disturbance.—A singular case of local asphyxia, accompanied by functional disturbances of the brain, is described by AXEL JOHANNESEN. A male child, about 16 months old, became, without any apparent cause, very irritable and restless. At the end of two months both feet swelled and felt cold. There was a bluish-red eruption which caused severe itching. The feet were covered with nodosities. The same condition then affected the hands, followed by desquamation of the soles of the feet and palms of the hands. At the same time the child forgot how to speak, and expressed himself solely by grunts and cries. After four or five months the irritation and desquamation ceased, the child became quieter and again began to speak; he gradually gained strength and his former gayety returned. Complete recovery only took place about fourteen months after the beginning of the affection. The author explains this unusual case by special vasomotor disturbances due to morbid cerebral modifications. Two analogous cases have been observed in Norway by Dr. Boeck.—*Norsk Magazin for Lägeordenskab*, p. 1, 1897.

Herpes Zoster.—OLAF FRICH observed in a man, 75 years old, a typical case of herpes zoster, affecting the entire right side of the neck and face, corresponding with the lower region of the cervical plexus. After ten days of suffering total paralysis of the right facial nerve suddenly set in. The pain and the paralysis gradually diminished, and finally disappeared after from two to three weeks treatment by the galvanic current.—*Norsk Magazin for Lägeordenskab*, p. 1125, 1896.

Periodical Paroxysms of Hiccough.—S. FEILBERG describes the case of a man, 42 years old, who suffered for several months from periodical paroxysms of hiccough, which entirely prevented his working and caused considerable suffering. After having searched in vain for the cause of the hiccough, the author finally found, at the base of the tongue, a tumor having three lobes, of which the central one, the largest, was about the size of a hazel-nut. These growths were due to a pronounced hypertrophy of the adenoid tissue at the base of the tongue, which caused, in addition to the hiccough, a continual sensation of fullness in the throat. There was also enlargement of the palatal tonsils, which were excised without producing any noticeable improvement. Ablation of the central lobe of the lingual tonsil caused considerable amelioration of the hiccough, which ceased entirely after the extirpation of the lateral lobes.—*Norsk Magazin for Lägeordenskab*, p. 1130, 1896.

Influence of Concomitant Disorders on the Diphtheria Bacillus.—FABER states that after diphtheria the bacilli successively become scarcer during convalescence; but, when a new disease—for instance, scarlatina—sets in, the bacilli of diphtheria often disappear suddenly. As diphtheria may complicate scarlatina, there can be no antagonism between the specific microbes of these two diseases, but probably the sudden disappearance of the diphtheria bacillus is due to an antagonistic effect of the streptococci, which so commonly are found in the throat in scarlatina.—*Hospitals-Tidende*, p. 1083, 1896.

Coloring-matter of Bile in the Urine.—M. RASMUSSEN recommends a new method to demonstrate the presence of the coloring-matter of the bile in the urine. One cubic centimetre of urine is mixed with as much ether and the mixture is well shaken with four to six minims of spirituous solution of iodine. The liquid then forms two strata; above is the ether with the iodine, and below the urine, which remains unchanged when no bile is present, but takes a brilliant green color when bilivirdin is present.—*Hospitals-Tidende*, p. 1200, 1896.

Experiments Concerning the Diphtheric Poison.—TH MADSEN has made a series of beautiful and careful experiments in the laboratory of the University of Copenhagen regarding the production and evaluation of the antidiphtheric serum.

It is not easy to secure a constant production of the diphtheria toxin; although Madsen employed a very toxic species of the bacillus diphthericus, originating from the Pasteur Institute, the cultures in bouillon gave very different results. Sometimes the culture was acid and atoxic, sometimes it

was alkaline and toxic, or also atoxic. These variations occurred without any known reason. The author, finding that the passage of air over the cultures was of no advantage, succeeded better by adding carbonate of calcium to the cultures in order to make them alkaline; nevertheless the result could not be accurately foretold. The toxin can be precipitated by the aid of sulphate of ammonium. Madsen measures the force of the anti-diphtheric serum in the same manner as the Germans, and gives a detailed description of the numerous experiments made in order to compare this method with that of the French. He found that, when toxins from different laboratories are employed to test the serum, the result is different, even when the lethal minimum dose of the toxin is accurately determined. A serum, which is calculated in one laboratory to be 100 units, may in another laboratory, where the toxin is different, only reach the force of 30 units.

Madsen therefore proposes to calculate the force of the toxin indirectly,—*i.e.*, by comparing it with the force of a standard serum. By the injection of 0.001 cubic centimetre ($\frac{1}{64}$ minim) of Höchst serum a guinea-pig is immunized against 10 × the minimum lethal dose of Ehrlich's toxin. When ten or twenty guinea-pigs receive each an injection of 0.001 cubic centimetre of Höchst serum, and different amounts of toxin from another laboratory, it will be possible to calculate the exact dose of toxin which is equivalent to the dose of the German toxin by which the Höchst serum has been tested. The Danish serum is of greater force than the French.—*Dissertation*, Copenhagen, 1896.

The Application of the Concentrated Chemical Rays of Light to Medical Use.—FINSEN, the well-known inventor of the "red-chamber" treatment of variola, has given the first account of the work done in his new institute for treatment by the chemical rays of light. The light employed is the sun-light, or, when this is failing, the light of powerful electric lamps, which is condensed by lenses of glass, or, better, by the so-called water-lenses. The red, warming rays are held back by a weak solution of methylene-blue and only the chemical rays are allowed to pass. Now, Finsen has found by his experiments that different microbes—the micrococcus prodigiosus, for instance—are killed by an exposure of from five to seven minutes to the concentrated chemical rays; the rays can easily make their way through the skin, but, as they are absorbed by the hæmoglobin, it is necessary to make the tissues anæmic by pressure in order to ascertain the effect of the rays on diseases of the skin caused by microbes. By this treatment there always ensues some irritation, redness, and œdema of the skin, and, when the exposure of the skin is continued too long, superficial necrosis of the skin may result.

A series of patients suffering from lupus have been treated in this manner, and in all cases there has been a considerable improvement, the treated portions of the skin recovering quite a natural appearance. But, as only small portions of skin can be treated during each *séance*, the treatment is long and tedious, and the author has, as yet, no complete recovery to report.—*Monograph*, Copenhagen, 1896.

Clinical Notes and Therapeutic Suggestions.

The Treatment of Plague by Serum.—That the best curative treatment is to be found in the inoculation of the special serum was demonstrated in a paper which M. Roux, of the Institut Pasteur, has just read before the Académie de Médecine of Paris. Yersin's treatment only failed in two cases out of twenty-six, and, in spite of the small number of cases to which the method has been applied, the results are very conclusive if we consider that the plague is the most fatal of human diseases, and that its death-rate is not less than 80 per cent. Yersin was able to make the test to which we have just referred with a few tubes of serum taken from a mare that had been immunized at his laboratory at Nha-trang, and with eighty tubes sent to him from the Institut Pasteur, at Paris, and taken from a horse which he himself had immunized and which had been kept there.

The serum sent from Paris, found preventive in mice at a dose of $\frac{1}{10}$ cubic centimetre (1.5 minims) for 20 grammes (5 drachms), had first been sent to Nha-trang, whence Yersin had carried it to Hong Kong, thence to Canton and to Amoy; but in spite of all this traveling during hot weather it had kept its curative properties. This is a very interesting fact, as it shows that the serum can be sent to the most distant countries.

As the plague is very rapid in its evolution, death often occurring in three or four days, not a moment should be lost in treating it; the sooner the injection is made, the easier it will be cured. This is clearly shown by the twenty-three cases treated by Yersin at Amoy; six were in the first day of the disease, and all recovered in from twelve to twenty-four hours without suppuration of the buboes, with injections of 20 to 30 cubic centimetres (5 to $7\frac{1}{2}$ drachms) of serum. Six were in the second day and recovery was slower; 30 to 50 cubic centimetres ($7\frac{1}{2}$ to $12\frac{1}{2}$ drachms) of serum were required, but all the cases recovered in three or four days without suppuration of the buboes. Four were in the third day, and the fever continued for a day or two after the injections were commenced. Recovery was slower, and the buboes suppurated in two cases, in spite of doses of 40 to 60 cubic centimetres (10 to 15 drachms) of serum. Four were in the fifth day, of whom two died, but their condition was a desperate one when the treatment was begun. The two others recovered, but from 60 to 90 cubic centimetres (15 to $22\frac{1}{2}$ drachms) were necessary.

M. Roux states that it is truly surprising to see the most alarming symptoms disappear in a few hours when the serum is given in the first two days of the disease. The buboes melt, so to speak, before your eyes; if, however, the treatment is begun at a later date, the amount of serum required is greater and suppuration of the buboes cannot always be avoided. Still, in such cases the suppuration, instead of lasting a long time, as in the cases when the plague gets well spontaneously, dries up in a few days. A proof of the efficacy of the serum is the rapid and complete recovery of the patients, whereas, otherwise, the convalescence is long and troublesome, even when the case has been a light one. The serum fails when the disease is too far advanced.

Hitherto the serum has only been used in confirmed cases of the dis-

ease, but from what has been seen in animals it will be an easier matter to prevent the plague than to cure it. It is, therefore, indicated, when a case of plague appears in a house, to make preventive injection for all the persons who have been exposed to contagion. Yersin thinks that this will be the most efficacious way of preventing the disease from spreading, and experiments now being carried out on animals will show how long the immunity thus given will last. In any case, Yersin proposes to test these preventive injections as soon as he is in possession of a sufficient amount of serum to open a new campaign.—*Bulletin de l'Académie de Médecine*, March, 1897.

Cocaine and Ichthyol in the Treatment of Fissure of the Anus.—M. Jules Chéron has always obtained good results by means of the following treatment: The anus being partly opened and the fissure discovered, a small tampon of absorbent cotton saturated with a 1-per-cent. solution of cocaine hydrochlorate is applied. At the end of five minutes local anæsthesia is obtained and the fissure can then be touched with pure ichthyol. This procedure is renewed on the following days. After the fourth or fifth application the tampon of cocaine is introduced as far as the internal sphincter, and at the end of five minutes it is possible to make a slight dilatation of the anus with Nélaton's dilator. In this way the fissure is distinctly exposed to view and can be thoroughly touched with ichthyol. The dilatation is more easily affected as cicatrization advances and it may gradually be increased until the disappearance of stricture of the sphincter, which so frequently complicates fissures of long standing, is an accomplished fact. Recent fissures may be cured by ten applications of this treatment, but old fissures, the borders of which are more or less callous, require a longer time for recovery; it is rarely necessary, however, to make more than twenty applications.—*Gazette de Gynécologie*, February 1, 1897.

The Pathology of Missed Abortion.—Dr. G. W. E. Fothergill states that, when the fœtal circulation ceases, the vessels of the placenta are rapidly obliterated. The fœtal epithelium covering the chorion and its villi degenerate, and the maternal blood between the villi forms clots, which are altered into dense laminated fibrin. The decidual cells then multiply and invade the fibrin, which they gradually replace, filling the intervillous space with layers and bands of decidual tissue. At the same time they disintegrate the fœtal epithelium, which come to be represented by scattered heaps and rows of nuclei, and finally disappear. The amnion remains almost unaltered, but adheres closely to the chorion, and the united membranes are thrown into folds and convolutions, covering the rounded lobes of altered placental tissue. The fœtal portion of the placenta does not grow after the death of the fœtus, though the maternal portion containing the decidual cells remains active. It is therefore improbable that malignant new growths can arise from fœtal placental elements.—*British Medical Journal*, March 20, 1897.

The Best Method of Employing Oil of Gaultheria in the Treatment of Rheumatic Affections.—An editorial writer in the February number of the

Therapeutic Gazette calls attention to the value of this drug in rheumatic affections. It has been found that the large percentage of salicylate of methyl contained in it exercises a very positive influence for good in cases of rheumatism which are usually benefited by other salicylates; and, further, that its physiological action is practically identical with theirs. Further experience, however, while it has supported the view that it exercises a beneficial influence in rheumatism, shows that it disorders the digestion quite as frequently as the other salicylates, and for this reason it has not become particularly popular. There are some patients who, after taking both remedies, much prefer the salicylate of sodium or salicylic acid to the oil. It has, however, been recognized as a fact, for a number of years, that the volatility of the oil of gaultheria renders it easy of absorption by the skin and by the respiratory mucous membrane. Quite ten years ago, the writer goes on to say, Randolph showed that, if oil of gaultheria were placed on a sponge, which in turn was placed in an inhaler, in a very short time the reaction of salicyluric acid could be obtained in the urine upon the addition of perchloride of iron, proving that the drug was rapidly absorbed from the respiratory mucous membrane and promptly eliminated. He also found that the use of oil of gaultheria in an ointment applied externally resulted in its absorption and in the appearance of a characteristic reaction in the urinary secretion.

In the *Lyon médical* for September 20, 1896, Lannois and Linossier, after recalling the fact that they demonstrated the absorbability of the salicylate of methyl through the skin, in the early part of this year, before the Academy of Medicine in Paris, record 24 cases of various forms of rheumatic affections in which they treated the patients by the external application of this drug, and their results are such as to encourage them to continue this treatment, although it is noteworthy that in the majority of their cases the conditions were not such as are generally most favorable for the administration of the salicylates. Thus only 4 patients in the 24 suffered from acute articular rheumatism; in 11 the rheumatism was articular, but subacute; in 7 it was chronic and associated with deformity; and in 2 the rheumatism was gonorrhœal. Curiously enough, says the writer, they assert that in both these last cases this treatment did good, although it is the universal experience of the profession that, as gonorrhœal rheumatism is septic in origin and not due to the ordinary causes of rheumatic affections, the salicylates are perfectly useless.

The method which they have followed in the application of the oil is as follows: The part which is affected is surrounded with lint which has been moistened by the application of one or two teaspoonfuls of the oil; this is then covered with a sheet of gutta-percha, and the entire limb carefully wrapped in an outside bandage, which is applied in such a way as to prevent the heat of the body from vaporizing the drug and permitting it to escape into the air, while the bandage also softens the skin and in that way aids in the absorption of the remedy. Under these circumstances these clinicians maintain that the pain is rapidly relieved, that the swelling decreases, and, as an evidence of the physiological action of the drug, that headache,

or fullness of the head, with throbbing of the ears, and other characteristic symptoms of cinchonism, speedily appear; further, that in the course of so short a time as half an hour the salicyluric acid reaction may be obtained in the urine. In the course of eight or nine hours the greater quantity of the salicylate of methyl which has been applied to the limb is absorbed and eliminated, total elimination being accomplished in twenty-four hours and relief of the symptoms produced usually earlier than eight hours; the temperature also falls, and the general condition of the patient markedly improves.

Locally, this treatment may produce reddening of the skin, and, if it is continued for some time, actual desquamation of the cuticle; but this is not painful, since anæsthesia is developed in much the same way as follows the application of guaiacol.—*New York Medical Journal*, March 6, 1897.

A Case of Reunion of Tendon Nearly Five Years After its Division, with Good Result.—R. Carmichael Worsley, of Ramsgate, reports the following interesting case: L. B., a cook, in 1890, when aged 30, broke a window and cut her right wrist badly. The wound was six weeks in healing, some fragments of glass working out. The thumb, index finger, and middle finger afterward became firmly flexed into the palm. A year after the accident, the tendons of the index and middle fingers were cut down upon and reunited by suture, with good result, after long extension on splints; the extension movements of the index finger, however, remained weak and imperfect. In December, 1895, the thumb was strongly adducted and flexed into the palm. The extensor primi internodii and extensor ossis metacarpi pollicis had escaped division, but the extensor secundi internodii pollicis had been cut, and its retracted ends could be obscurely felt in the scar-tissue on the radial side of the wrist.

On January 16, 1896, the author cut down on the scar, having made the limb bloodless, and found the ends of the tendon separated by one and one-half inches of fibrous tissue traversing the scar. This band contained in its centre some gelatinous-looking substance, which, on microscopical examination, proved to consist of a few genuine tendon-bundles running through the fibrous material. It was impossible to bring the ends of the true tendon together without splitting them, and as the operator was anxious to obtain strong union he excised an inch only of the fibrous band, and brought the ends together with one stout and two fine silk sutures. Rigid antisepsis was aimed at, and the forearm and hand placed upon a splint, with the thumb overextended on a wire arm. The wound healed by first intention. There was very severe pain for a long time up the forearm and arm, owing to stretching of the flexors, which had been so long contracted. This pain had prevented my practicing any continuous extension preliminary to operation. Morphine gave but little relief, and insomnia was troublesome. After a week very gentle passive movement was begun and kept up daily for a minute or two, the thumb being kept overextended on the splint. On the nineteenth day a new splint was applied, fitting the radial side of the forearm, and fixing the thumb out, while the fingers had freedom, and the patient was able to do her work. In three weeks from the operation she

was able to perform feeble extension of the thumb, but flexion took place if it were left off the splint. The constant current was now applied to the muscle for ten minutes daily (15 cells Leclanché).

Three months after operation the thumb became loosened from the splint in the night, and contracted toward the palm, but not to the former extent. It was secured and always kept on the splint except when exercised and galvanized daily.

Till June, 1896, improvement continued, though slowly. If the bandage were taken off the thumb became flexed and adducted to beyond the line of the index finger. Movement in the direction of extension was stronger, however. There was still some pain in the forearm.

In October the patient could leave off the splint for fifteen to twenty minutes, and use the thumb a little. She was advised to take the splint off frequently and exercise the muscles. The current from ten cells was used. On October 27th the patient wrote a letter, using the thumb. On November 1st the splint was off for three-fourths of an hour, and she had a light steel spring attached to the thumb, riveted to a leather wrist-strap, which exerted a pull equal to three ounces. The tendon could be distinctly felt, with some thickening at the site of union. Since the operation the extensor indicis is much stronger, which he attributes to the disturbance of the adhesions throughout the old scar which then occurred.

At the time of writing—November, 1896—the thumb was practically, except for a little weakness, as good as the other one, and the patient will very soon, he hopes, be able to dispense with all artificial support.

This case is worth recording in view of the long time that had elapsed since the division of the tendon, and the resulting confirmed deformity, which had induced more than one surgeon to advocate an amputation. The ultimate good result was attributed to: 1. Early passive movement, very limited in extent, and gentle, not enough to disturb union of the tendon, but sufficient to prevent its adhesion to the scar-tissue, there being no tendon-sheath present. 2. Perseverance in overextension of the thumb on splints, to overcome the action of the long-contracted flexor muscles. 3. Daily application of the constant current to the extensors of the thumb, long disused, and persistence in active exercises of the same muscles.—*British Medical Journal*, March 20, 1897.

A Report of Cases of Sun-stroke During the Summer of 1896.—The cases under consideration, reported by N. R. Norton, of New York, occurred in the wards of the Presbyterian Hospital, in the service of Dr. J. P. Thornley. During six days, from August 8th to 13th, inclusive, about 110 persons were brought to the hospital suffering from the excessive heat. In the mild cases cold water was given, with which they sponged their heads and chest, and they were kept in a cool room and left the hospital in from fifteen minutes to twelve hours. The severer cases, with a temperature of 104° F. (40° C.) or over, numbered 61, with 9 deaths,—a mortality of $14\frac{3}{4}$ per cent. In these hydrotherapy and skilled and careful nursing were the chief factors; the very frequent recording of the temperature enabling the baths to be given at the earliest and, therefore, most valuable time; the

use of the ice tub-bath, with constant and general friction of the entire surface, thus reducing the temperature in the shortest possible time, and being stimulating rather than depressing; the use of the same bath for all severe secondary elevations of temperature, and for the minor elevations sponge-baths of ice-water or of water at from 70° to 80° F. (21.1° to 26.7° C.), depending upon the individual case; and the repetition of these baths whenever the temperature is high enough to make them seem advisable.

All other means seemed entirely inadequate.

The severity of the epidemic, the large number of cases occurring in so short a time, and the crowding consequent to such an emergency make the low death-rate of 9 in 61 cases (11 not tabulated), or 14¾ per cent., extremely gratifying.

In this hospital, from August, 1888, to April, 1896, there were 22 cases of insolation with temperatures corresponding to the arbitrary standards adopted above, with 9 deaths,—a mortality of 41 per cent. At the Pennsylvania Hospital, in the summer of 1887, there were 31 cases, with 12 deaths,—a mortality of 35 per cent. A report by Swift, of 150 cases, records 78 deaths,—a mortality of 52 per cent.

A comparison of these records shows the importance of noting, if possible, any points in the treatment of cases in the epidemic of the past summer which could, in any way, account for the marked difference in mortality.—*New York Medical Journal*, March 6, 1897.

The Action of Antitoxin.—Ehrlich (*Fortschritte der Medicin*, January, 1897) considers that the action of antitoxins might be more usefully studied by test-tube experiments than by experiments with the complex living organism. The action of diphtheria antitoxin was regarded at first as a destruction of the poison, but this is disproved by the fact that in a "physiologically neutral" mixture of toxin and antitoxin these two constituents are found to be present unaltered. Two other views have been advanced: (1) that the toxin and antitoxin form a sort of combination which lacks the property of fixation in the tissues, and therefore the toxic effect is lost; (2) that the action of antitoxin is indirect,—that is, it acts on the living cells and in some way renders them immune to the action of the toxin. Ehrlich has made some experiments with ricin, the toxalbumin of *Ricinus communis*, which Kobert has shown to produce a peculiar coagulation of the blood, whether in the living body or outside. Immunity to the action of this toxalbumin can be obtained in certain animals by formation of an antiricin. The coagulation is proved to be a purely chemical phenomenon, not a vital reaction. A mixture was made of 5 cubic centimetres of rabbit's blood in 95 cubic centimetres of weak solution of sodium chloride, with a little sodium citrate; on adding to this mixture 1 cubic centimetre of a 2-per-cent. ricin solution coagulation occurred at once. On adding antiricin in increasing quantities, starting with 0.3 cubic centimetre, together with the ricin, coagulation is delayed slightly or considerably or prevented altogether, according to the amount of antiricin added. To make the analogy between this phenomenon and the action of diphtheria antitoxin more complete, mice were injected with ricin combined with various doses

of antiricin, and it was found that the effects of the ricin could be regulated from a fatal result to complete absence of symptoms according to the amount of antiricin injected. These experiments would favor the view that the action of diphtheria antitoxin is a purely chemical, not a vital, operation. —*British Medical Journal*, March 20, 1897.

Peronine in the Treatment of Cough in Phthisis.—Dr. C. Schröder has compared the value of this salt—an hydrochloride of the benzyl-ether of morphine—with that of codeine phosphate in the treatment of obstinate phthisical cough, and concludes that it occupies an intermediate position between codeine and morphine. He used it in 12 cases in doses of from $\frac{1}{3}$ to $\frac{2}{3}$ grain (0.02 to 0.04 gramme). In 8 cases it caused a notable diminution of the cough, in 2 cases larger doses were required, and in 2 others it failed completely. Prescribed in doses as large as $1\frac{1}{4}$ grains (0.08 gramme), however, it did no harm; in larger amounts it seemed to provoke nausea and have a decided constipating effect. In 2 cases sweating and difficulty of expectoration were noted; but in all the cases it produced a calmer sleep than that obtained with codeine.—*Gazette Hebdomadaire de Médecine et de Chirurgie*, February 14, 1897.

Search for the Germ of Seborrhœic Eczema.—Wm. H. Merrill, of Pepperell, Mass., gives the result of a series of experiments, and concludes that seborrhœic eczema is caused by a specific germ or germs, in form diplococci, whose life-history is most active at the ordinary temperatures and with free access to the air, but which can develop at much higher or lower temperatures and with a scarcity of oxygen,—a germ having the characteristics which one would most naturally expect in a disease as prevalent and widespread as seborrhœic eczema.—*New York Medical Journal*, March 6, 1897.

Hysterical Hæmoptysis.—Strumpell (*Monatsschr. für Unfallheilkunde*, No. 1, 1897) records a case of hysterical hæmoptysis after fracture of two ribs in a man. Three days after the accident the patient spat up some blood, and for the next three months did not leave his bed. He complained of frequent pain in the injured side, with cough and bloody expectoration. His expression was that of a melancholy hypochondriac. The cough was slight, but almost continual, and had an artificial sound, as if produced by an effort for the occasion. The surface of the soft palate was stippled with tiny hæmorrhagic spots; the larynx was normal. About 15 to 30 cubic centimetres of blood-stained expectoration accumulated daily in the spittoon; it consisted chiefly of mucus containing a few white and red blood-corpuscles, which gave it a pale-reddish color, much paler than that of "rusty" sputum; there was only a trace of pus and no tubercle bacillus. The lungs and other organs were normal. There was much complaint of headache and drowsiness and other neurasthenic troubles. Treatment directed especially to the psychical condition was followed by improvement. Strümpell considers that such cases are not sufficiently recognized. The expectoration is almost always from the mouth, or pharynx, or neighboring parts, and may be distinguished from true hæmoptysis by the far

smaller amount of blood in it, the absence of pus-elements, and the large amount of squamous epithelium, leptothrix, and food remains present. The blood expectorated is to be attributed to the mechanical injury to the mucous membrane from the continual cough. Such hysterical hæmoptysis occurs also apart from trauma in persons of hysterical or hypochondriacal temperament.—*British Medical Journal*, March 20, 1897.

The Bacillus of Friedlander in Pharyngitis and Tonsillitis.—W. C. C. PAKES, of London, studied this subject in the laboratory of Guy's Hospital. Nicolle and Hébert had already published an account of the occurrence of the pneumobacillus of Friedlander on the throat of patients suffering from tonsillitis, follicular tonsillitis, or membranous pharyngitis. Upward of 1600 serum-tubes inoculated from the throats of patients were examined by them, and they found the pneumobacillus of Friedlander eight times, six times alone. Since November, 1894, upward of 500 serum tubes inoculated from the throats of patients in the wards, or out-patients, of Guy's Hospital have been examined. In five cases the author found the bacillus of Friedlander; twice it was found on the surface of the serum in pure cultivation, twice in association with the Klebs-Lœffler bacillus, and once with the staphylococcus aureus.

In each of the three cases which were not pure on the serum he succeeded in obtaining pure cultures on the second subcultivation by inoculating three agar-tubes from the once-inoculated platinum spatula. The morphological characters which they exhibited were

1. Non-motility.
2. Polymorphism.
3. Decoloration when stained by Gram's method.
4. The presence of a well-developed capsule, especially when taken from the heart-blood of the inoculated mice after death.

The cultural characters were as follow:—

1. Whitish, semitranslucent, sticky growth in bouillon.
2. Aërobic and anaërobic growth in gelatin, causing no liquefaction.
3. Whitish, moist, raised growth on slanted gelatin, the growth slipping to the bottom of the tube after four or five days.
4. Abundant gas production in glucose gelatin shake cultivation.
5. Slimy and almost transparent growth on agar and blood-serum.
6. Formation of acid in dilute lactose bouillon.
7. Coagulation of milk with an acid reaction (in four cases before the ninth day; in one case on the eleventh day).
8. Brownish abundant growth on potato.

Pathogenicity.—Mice were inoculated at the root of the tail with a small quantity of a young agar-culture from each case. In two cases the mice were dead on the second morning; in the other three cases they were dead on the third morning. The typical capsulated bacilli were found in the heart-blood and spleen of each mouse, and from the heart-blood pure cultures were recovered.

The patients were all attending at the out-patient department of Guy's Hospital, and, although three of them promised to come again in about a fortnight, not one of them came.

Cases I and *II* were both children. There were small yellowish plugs on both tonsils, which were spreading toward one another. Klebs-Lœffler bacilli were found in conjunction with the bacillus of Friedlander. The children were sent to a fever hospital and were lost sight of.

Case III.—A man, aged 30, complained of a sore throat, which he had noticed for a few days. The fauces were red and the tonsils red and swollen; there was a slight colorless exudation on both sides of the fauces. There was no constitutional disturbance, and the patient said that he felt perfectly well except for the sore throat. The cultivation on coagulated blood-serum was a pure one of Friedlander's bacillus. On the following day the throat had the same appearance, and the second cultivation again proved to be a pure one of the same bacillus.

Case IV.—A man, aged 20, complained of a sore throat, which he had noticed for about a week. The fauces were red and injected, and there were two or three whitish plugs over the crypts of the tonsils, but no sign of membrane. The culture on blood-serum was found to consist of the bacillus of Friedlander and staphylococcus aureus. Two days later the throat was still inflamed, but less sore. A second cultivation revealed the presence of the same two organisms.

Case V.—A girl, aged 6, was brought to the hospital because she had a sore throat. The tonsils were red and swollen, and a few plugs of whitish material were present. The temperature was 100° F. (37.7° C.). A pure cultivation of Friedlander's bacillus was found on the blood-serum. No further observation was made.—*British Medical Journal*, March 26, 1897.

Venereal Diseases in the British Army.—The condition of the British troops in Hindoostan was made the subject of a report by the Secretary of State for India, and an appalling document it truly is. From 1890 to 1892 a cantonment act was in force, which was abolished in 1893. During the earlier years there was a steady and even rapid decline in admissions to hospital; after 1893 there was an equally steady and rapid increase. The highest recorded figure of incapacitated men was reached in 1895, when 522.3 men per 1000 strength, or 536.8 per 1000 of troops in cantonments were in hospital. Among 5882 men detailed for field service with the Chitral Relief Force, 462, or nearly 8 per cent., had to be rejected owing to disease; 279 more, or an additional 4½ per cent., had to be transferred from the field-hospitals to the base. According to this ratio, 8880 men out of a total force of 71,031 British soldiers in India would have to be put down as useless.

How many of these men when they return from India communicate infection to the civil population at home it is impossible to estimate. Perhaps some inkling of the truth in an inverse fashion may be gathered from the fact that in 1894 it was discovered that only 37 per cent. had never suffered at all either in or out of India.

It is known that among the majority of European armies special regulations are enforced in combating disease. The British army in India is an exception. The ratio per 1000 strength of men incapacitated in the German army is 27.3; in the Russian, 43; in the French, 43.8. In the British army it is 203.7 at home and 438.1 in India! Comment is superfluous.

This deplorable state of things does not appear to be attributable to general causes, but to venereal diseases alone. Drunkenness and crime have greatly diminished. More care than ever is taken of soldiers in the way of recreation, cleanliness, and the encouragement of athletic and manly sports. The fact remains that among a body of men, mostly very young, and nearly all obliged by the condition of the service to remain unmarried, only a few can resist such temptations as are offered to them.

It appears that numbers equal to a brigade of infantry are constantly non-effective through venereal disease in the force of 70,000 men in India. That is the direct effect; but the indirect—that is, the abrogation of sanitary regulations—is much worse, nay, even incalculable, for many ailments causing invaliding, and even death, although not classified under venereal diseases, nevertheless spring from them. The shocking constitutional deterioration and breakdown under venereal taint which medical officers in India witness fill them with mingled pity and disgust that such things should be permitted by really humane men.

To sum up losses and gains under this so-called moral, but really cruel, crusade: 1. Prostitution greater than ever. 2. Virulence of disease much increased. 3. Direct inefficiency alarming; indirect, incalculable. 4. Taint spread at home by returned time-expired men. 5 Soldiers' morals not elevated by fear of venereal diseases. 6. Moral gain absolutely *nil.* 7. Physical suffering wantonly aggravated.—*Medical Herald.*

Chemical Examination of Children's Milk.—Chasovnikoff has examined children's milk, which accumulates—as is known—in the mammary glands of the newborn of both sexes during the first months of life, and flows out on pressure. The author found that, qualitatively, children's milk contains the same component parts as women's milk and colostrum, but that it differs considerably quantitively. It contains more water and salts, and less albumin, sugar, and fat. Qualitatively it comes nearest to donkeys' milk.—*Transactions of the Physiological Institute of Moscow University*, vol. v, No. 1, 1897.

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OF THE

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES,

Issue of 1896.

CHARLES E. SAJOUS, M.D., Editor-in-Chief,

28 RUE DE MADRID, PARIS, FRANCE.

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(End of Editorial Department of Journal for April, 1897.)

GUDE'S PEPTO-MANGAN.

The treatment of wasting diseases is everywhere being carefully studied by the ablest members of the medical profession. When climatic influences are all that could be expected and the general associations of the patients are reasonably pleasant, it is fair to presume that the effects of drug action can be more accurately gauged than when associated with less favorable conditions. Dr. Karl von Ruck, director of Winyah Sanitarium of Asheville, N. C., has had great opportunities for the study of anæmic conditions. In a long article published in the *New York Medical Journal* he has shown, by mathematical competition, the results obtained by the administration of "Gude's Pepto-Mangan" in the various forms of anæmia, associated with gastric catarrh, tuberculosis, etc.

Dr. Ruck unhesitatingly admits that he has had such unsatisfactory results from the administration of iron that he had practically abandoned its use until he reluctantly undertook the administration of Pepto-Mangan, which he found to be palatable and readily taken by his patients. In only two cases has he found it necessary to discontinue its use on account of the objectionable features associated with its administration, and these were cases of tubercular ulceration of the epiglottis. In all other cases the remedy was well borne by the stomach and no unpleasant after-effects were observed. After using this remedy with upward of seventy patients, all sources of possible error being carefully excluded, Dr. Ruck feels justified in warmly endorsing it.

He has prepared a table showing the number of blood-corpuscles gained under this treatment, in one instance reaching as high as 46 per cent. In view of the fact that all physicians recognize the difficulty in securing desirable results from the administration of iron, these thoroughly scientific demonstrations should be carefully considered. Careless prescribing in cases where the results of the contest are so vital is certainly reprehensible. It would seem, therefore, that a safe rule for general practitioners would be to use a preparation which had proved its efficacy so thoroughly, under circumstances where it was possible to scientifically estimate its value, instead of the prescription of the medicants in which the element of chance enters to a greater or less degree.

MEDICATION IN THE GOUTY AND RHEUMATIC DIATHESES.

Dr. George W. Tobias, of New York, gives the histories of several cases of rheumatism and gout successfully treated by Colchi-sal. He says: "In all cases I have found that that derived from carbolic acid and CO_2 is vastly inferior to the salicylate existing as salicylate of methyl in the sweet birch. An elegant and perfectly safe preparation of the above drugs, and one which, in my hands, has never yet failed me, is Colchi-sal (Colchicein methyl-salicylate). This drug is dispensed in capsules of 20 centigrammes, and each contains exactly $\frac{1}{4}$ milligramme of the active principle of colchicum. In all my cases no excessive catharsis or untoward effects were noticeable. The agents for the sale of Colchi-sal are E. Fougera & Co., 26 to 30 North William Street, New York.

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OPINIONS FROM THE PROFESSION.

From **H. S. CUNNINGHAM, M.D.,** *Professor of Gynæcology and Clinical Diseases of Women, American Medical College, Indianapolis, Ind.:* "I have been delighted with the action of RESINOL in Pruritus Vulvæ, Tinea Capitis, etc.

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by study; and, in short, all in whom a diminution of red blood-corpuscles had ensued, due no matter to what causes."

The Physician'a Vest-Pocket Formula Book.—Fourteenth edition, revised and enlarged. Published by McKesson & Robbins, New York, 1897. This little book contains a great deal of useful information. The list of antidotes to poisons is chiefly compiled from Dr. William Murrell's well-known book on "What to Do in Cases of Poisoning." The formulæ of solutions in common use will be appreciated by many readers. As there is an increasing number of diseases named after individuals, the table which indicates their significance will often prove of assistance. A list of drugs antagonistic in action is chiefly taken from tables compiled by Professor Lucius E. Sayre. One of the most valuable features of the book is a table showing the composition of various foodstuffs, some of the data being obtained in work carried on in the laboratories of the publishers. The table of solubilities of the newer medicinal substances will be of service to the practitioner. The book includes a complete list of the McKesson & Robbins gelatin-coated pills, and notes on some of the newer pharmaceutical preparations,—as the oleostearate of zinc, certain derivatives of guaiacol, etc.

Boehringer's Papain.—By what name should a physician prescribe "the dried juice of the unripe fruit of the pawpaw (*Carica papaya*)?" Only by its legitimate name, Papain, as it has been specified in all standard text-books for twenty years or more. Trade-marked synonyms should be eschewed,—the reason is self-evident. But when prescribing Papain it is perfectly proper to specify "Boehringer's (or B. & S.),"—for this firm supplies *a purified product*, all tested to the standard of solvent power, and hence reliable. Boehringer & Soehne, 7 Cedar Street, New York, will send the test on application. For literature see all text-books.

Local Treatment of Chronic Gastric Catarrh.—In a recent clinical lecture Prof. J. M. G. Carter, of Chicago, said that in the first stage of chronic gastritis a solution of hydrozone is satisfactory in many instances. A glassful (f℥viij) of a 2- or 3-per-cent. solution may be given half an hour before meals. If used as a douche with the tube, a 5- or 6-per-cent. solution is not too strong and 2 quarts the minimum amount.

In the second stage the mucous membrane may be cleansed by a 5- or

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8-per-cent. solution of hydrozone introduced with the double tube. For home treatment, or when the tube cannot for any reason be used, a solution may be made for drinking. For this purpose a 2- or 3-per-cent. solution of hydrozone is prepared. The patient may take a glassful (8 oz.) half an hour before meal-time. He should lie down at once, remain five minutes on the back, then turn on the right side, where he must remain during the remainder of the half hour. When hydrozone has been given before meals, as already suggested for cleansing purposes, glycozone may be administered in teaspoonful doses after meals with very satisfactory results.

Dangerous Spurious Imitations.—The attention of the medical profession is directed to the various dangerous decoctions masquerading as coca-wine. These decoctions are intended as meretricious imitations of the standard French preparation "Vin Mariani." Investigation discloses that these so-called coca-wines are generally variable solutions of the alkaloid cocaine in sweetened wine of a low grade (artificial wines). Physicians will not encounter disappointment whenever using "Vin Mariani," the standard French coca-wine, as an adjuvant in treatment as a tonic-stimulant, and as a restorative in cases of profound depression, anæmia, and exhaustion.

Protonuclein in Tic Douloureux and Other Affections.—In a paper contributed to the *Atlanta Clinic*, Dr. Lucien Lolton, of Atlanta, says: "Protonuclein is indicated in all forms of wasting processes, anæmia, indigestion, and in the various nerve affections, and as a general tonic and

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Sozoderma.—As sozoderma has been so highly recommended by all who have used it as a personal cleanser and antiseptic, it deserves a very thorough test by our readers. The well-known chemists, Hall & Ruckel, of New York, will be pleased to furnish samples to physicians mentioning this journal.

Alimentation in Nervous Disorders.—The following passage concerning Somatose is taken from Dr. J. T. McGillicuddy's recently published work on "Functional Disorders of the Nervous System in Women": "In view of the repugnance to a meat diet which sometimes exists in neurotic persons, some authors have recommended the addition of somatose. Being practically tasteless and odorless and soluble in all ordinary fluids, it can be administered in a variety of ways to suit the palate of the most fastidious patient. Owing to the ease and completeness with which somatose is digested and assimilated, and its stimulating effect upon the appetite,

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Eligible Vasomotor Stimulants and Blood-builders.—Under this title the *Times and Register* says that mercury and arsenic have been rendered more easy of assimilation and their therapeutic value distinctly

THE INFLUENCE OF BEER ON DIGESTION

This paper, "The Influence of Beer on Digestion," by Hobart A. Hare, M.D., in the *Medical News*, is the result of independent and unbiased research by a man of unquestioned ability, whose object was merely to aid the general practitioner in selecting wisely a tonic beverage when he judged one necessary. The experiments performed by him are sufficiently well described to enable any one familiar with that kind of work to repeat them, and their exactness is such as to inspire full confidence in their value. Our favorite brand of beer headed the list of the recommended products of the most prominent breweries of the country. This was no surprise, since we spare neither time, money, nor skill to produce *the best.* Our

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(Concluded on page 29.)

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The subjects as outlined in the condensed table of contents given on following page are simplified and treated in as brief, intelligible, and yet as comprehensive a manner as is consistent with the objects expressed.

Abridged Table of Contents.

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(Concluded from page 24)

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Treatment of Morphine Habit by Melachol.—Dr. Thomas Osmond Summers states that after the use of melachol in over two hundred cases he can honestly and with great gratification report that in only three or four cases has he failed to withdraw the drug (even when accustomed to thirty grains a day) entirely within three weeks. He has had but six relapses and these were deliberate. In administering melachol for the cure of the morphia habit, a large dose should be administered at the very outset.

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G. H. S. in "The Colorado Medical Journal," Denver, Colorado.

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Universal Medical Journal.

A MONTHLY MAGAZINE
OF THE PROGRESS OF EVERY BRANCH OF MEDICINE
IN ALL PARTS OF THE WORLD.

(Companion Publication to the "Annual of the Universal Medical Sciences.")

Vol. XI. Old Series | PHILADELPHIA, MAY, 1897. | Vol. V. New Series.

Selections from Society Proceedings.

FRANCE.

ACADEMY OF SCIENCES.

On the Physiological and Pathological Action of the X-rays.—DR. SOREL, alluding to the superficial lesions caused by the x-rays, reported the following case: On September 29, 1896, a young girl, 16 years old, was exposed to the action of a Pollardeau tube, connected with a coil giving a spark of about ten centimetres. The tube was placed over the epigastric region, close to the skin (one centimetre), from which it was separated by a thin leaf of celluloid. The sitting lasted about three-fourths of an hour, with intervals of rest, giving a total exposure of about twenty minutes.

The result, as far as the radiograph went, was *nil;* the duration of the exposure of the plate behind a region so opaque as the abdomen, having been insufficient to cause an impression upon it.

Six days later (October 5th) a red spot six centimetres in diameter, with a white center two centimetres in diameter was observed on that portion of the abdomen which had been exposed to the tube. It was slightly painful to the touch. Eight days later (October 12th) deep and rather acute pains were experienced and the medical man called in ordered the application of a menthol ointment. This was followed by a rather profuse suppuration lasting a month (October 12th to November 12th).

Until then the pains were not at all excessive. Simultaneously, however, a similar spot occurred on the leg, somewhat above the ankle; it was of smaller diameter than the first lesion. The suppurating abscess of the leg became exceedingly painful and complete rest became necessary. This abscess healed at the end of a month.

The abscess at the epigastrium, which was only two centimetres in

diameter, ceased to suppurate on applying compresses of boric acid, and became covered by an eschar which was exceedingly painful. Since the end of November the pains have become insupportable; no other means of relieving them have been found than to apply every two hours, night and day, poultices with vaselin to which cocaine had been added.

The speaker called attention to the fact that the patient was exceedingly nervous, though seemingly of a good constitution, and the production of a lesion on the leg, though the tube was applied opposite the abdomen, would seem to indicate a particular predisposition, a marked receptivity as to the action of the rays, which are known to possess powerful penetrating powers. He argued that there must have existed a special proclivity on the part of the patient, for in many other cases in which the sittings had lasted four or five times as long, and repeated several times, at twenty-four hours' interval, he had not observed such phenomena.

In another case radiography of the pelvis and femur, in a little girl 9 years old, was followed by the production of a red spot on the thigh; the epidermis was raised and fell off, but no pain nor eschar occurred. Yet the same tube, connected with a coil giving sparks twenty centimetres long, had been applied in the same manner, for two hours (actual sitting being one hour), a very good photographic proof of the region examined resulting. It must be said, however, that, owing to the result obtained in the first case, he had placed the tube farther off. But the patient's general condition was such as to have involved greater receptivity. Mention was also made of the fact that in neither case did the patient perceive any electrical sensation or feeling of heat during the sitting.

The pain felt by the patient in whom the eschars were produced was similar to that caused by a deep burn; the wounds resembled the latter as to pain, but it seemed that the effect produced was quite different from that of a burn. The x-rays thus appear to exert on the cell and its contents a powerful action which would seem to show that it is imprudent to employ them for any prolonged period in some patients, in the neighborhood of important organs, such as the stomach, the heart, or lungs, or to expose a delicate organ such as the eye to their destructive influence.

The author remarked that the body of an animal already dead for some time is always more opaque—that is to say, penetrated with more difficulty by the x-rays—than after death while the body is still warm. This difference in the transparency of the tissues may be due to the progressive coagulation of fibrin.

Dr. Lannelongue remarked that the above observations gave a fresh example of the inflammation extending to suppuration that may be caused by the x-rays. While Dr. Sorel thought that the second abscess observed in his first—*i.e.*, in a situation where the tube had not been applied—was likewise due to the rays, the speaker argued that this hypothesis seemed hardly justified, from the fact that no bacteriological examination of the pus was made. It would be interesting to know positively whether in this case suppuration was exclusively chemical, as it should have been.

The x-rays give rise to special disturbances of nutrition, which may go

as far as the mortification of the tissues. Suppuration is rather uncommon, and it remains to be proved whether it arises without microbes; whether, in one word, it is of chemical origin. These singular effects of the x-rays are comparable to those observed by the speaker over twenty years ago on patients exposed to the chemical rays of the sun. The experience took place at the Trousseau Hospital. In the midst of July, and during a hot day, about twenty children had been placed in their beds in a court for several hours. The court was a sanded one, and the sun did not shine into it in the afternoon nor upon the children; this was certain. However, most of them suffered from the accidents of severe burns, erythema, cutaneous suppuration, followed by erysipelas, which in two cases caused death.

Great emotion was produced in the hospital by this event, and the advice of the celebrated physicist, Foucault, to try the effect of strontium glass panes was followed. Accordingly other patients were exposed to the same light in the court along with other children whose hands were free and not covered with glass plates. The patients whose hands were thus protected were not affected; those whose hands were exposed were burned like the first children, and this was undoubtedly due to the chemical rays of the solar light.

GREAT BRITAIN.

Society of Anæsthetists.

Pulmonary Disorders After the Administration of Anæsthetics.—Dr. Silk introduced a discussion on this subject. He dealt with the subject under three heads: 1. The relative frequency of these pneumonic troubles: Transitory bronchial irritation was not referred to, but marked pneumonia with definite signs. In preanæsthetic and preantiseptic days pneumonia was a frequent cause of death in surgical cases, but, according to records of 5000 cases published in hospital reports for 1894 and 1895, only 13 cases of pneumonia were referred to, and of these all but 1 were more or less of a septic nature. Prescott, of Boston, in 40,000 cases of etherization, found only 3 cases of typical pneumonia. 2. Possible explanations of their occurrence: The bacillus of bronchitis had not yet been discovered, and one of the three micro-organisms credited with causing pneumonia was often found in the normal buccal *débris*. 3. To what extent could they be referred,—either to the anæsthetic used or the apparatus employed? Experiments carried out on anthrax spores, cholera, tubercle, and typhoid bacilli, with different anæsthetic agents, showed, in many cases, rapid and permanently fatal results. Nitrous oxide,—the mildest of all anæsthetics, both from an anæsthetist's and bacteriologist's point of view,—which was used probably more frequently than all the others put together, and under conditions which would be most likely to convey infection, except when a foreign body had slipped into the trachea, had never, to his knowledge, been followed by anything approaching pneumonia. Dr. Silk mentioned several improvements in apparatus introduced of late years to facilitate cleaning.

Mr. Rickard Lloyd remarked that, in 1887, he suggested the use of a new or a thoroughly-cleansed bag for each patient. It had often occurred to him that more might be done to protect patients from possible chill at the time of operation and in the wards afterward, as, should it occur, the risk of simple inflammation of the respiratory passages was greatly increased, if not solely induced, by it; and specific bacilli would find it a great auxiliary in the production of the disease. He read extracts from the notes of Mr. C. H. Wilmer, house-physician at the West London Hospital, of a case in which bronchitis, followed by left lobar pneumonia and left pleurisy with effusion, supervened soon and successively after removal of a broad-ligament cyst from a pale, delicate-looking woman aged 24. She ultimately recovered. No other cases of the kind occurred about this time in the hospital; and, indeed, bronchial irritation calling for treatment was, in his experience, rare, while he was unacquainted with any case of pneumonia that had been attributed to an anæsthetic, and the case cited was not, apparently, of specific origin.

Manchester Medical Society.

The Technique of "Serum Diagnosis" in Typhoid Fever.—A. Sheridan Delepine, of Manchester, having tried the various methods which seemed likely to yield good results, selected the one that had been used in his laboratory ever since. The results obtained with this method have been carefully tested in over fifty cases by independent observation of patients kept under close supervision by Dr. Marsden at the Monsall Fever Hospital, and have proved to be remarkably accurate.

The serum of an immunized animal or that of a patient affected with a specific fever may be used for the purpose of diagnosing whether a bacillus is the bacillus causing that fever; or, on the contrary, the specific bacillus may be used for the purpose of finding out whether the fever has been produced by the microbe in question.

In both cases the technique may be the same. It is important, however, to keep in mind that, for practical purposes, the diagnosing of a fever by the action of the serum on a known bacillus is far more useful and, as a matter of fact, a far more reliable method than the diagnosis of the bacillus by means of the serum of an immunized animal. It is the happy idea of reversing all the experiments which had been made up to then which led Widal to the valuable application which he introduced at the beginning of last summer. He must also be credited with the very important notion that the action on which the test is based is not one possessed only by the blood of animals or persons who have become more or less completely immunized, but also by the serum of individuals who have been too recently immunized to give any evidence of what is generally known as immunity. These individuals are undoubtedly undergoing processes which will end in more or less complete immunity, but they are as yet on the wrong side of the fever, which may or may not kill them. The reaction, under those circumstances, becomes less one of immunity than one of infection.

At the beginning of 1896 four kinds of methods had been used to demonstrate the action which the blood or blood-serum of immunized animals has on the corresponding microbes.

1. The microbe is cultivated in the serum of an animal immunized against it. By this method Charrin and Roger found, in 1889 (on litmus [or phenolphthalein], slightly alkaline lactose-peptone-agar, or gelatin no production of acid reaction), that the bacillus pyocyaneus forms clumps or flakes, which fall to the bottom of the test-tube in the shape of a sediment, the supernatant fluid becoming clear. In the serum of a non-immunized animal the bacilli remain disseminated, giving rise to a uniform turbidity.

2. The serum of an animal immunized against a specific microbe is mixed with the microbe to be tested and is injected into the peritoneal cavity of a guinea-pig.

By this method R. Pfeiffer found (in milk no coagulation) that motile micro-organisms (bacillus of cholera or typhoid fever) are rapidly immobilized, and that, if the serum be potent and the quantity of micro-organisms not too large, the microbes undergo a granular degeneration, and may ultimately disappear by a process of solution which its discoverer has compared to that of a piece of sugar placed in water. Other microbes than the specific ones do not undergo the same degeneration.

A loopful, = 2 milligrammes ($\frac{1}{32}$ grain), of a twenty-hour culture on agar of the bacillus to be tested, made into an emulsion with bouillon, is mixed with 0.1 to 0.2 cubic centimetre ($\frac{1}{6}$ to $\frac{1}{3}$ grain) of the serum of an animal strongly immunized against the specific bacillus —say, of typhoid fever. The total amount of fluid thus obtained is made up to 1 cubic centimetre (15½ minims). This is injected into the peritoneal cavity of a guinea-pig weighing 300 grammes (10 ounces); fifteen minutes, thirty minutes, one hour after the injection a few drops of the peritoneal exudation are removed and examined under the microscope. If the bacillus be a genuine typhoid bacillus it will be found, at the end of an hour, to have undergone the degeneration described above. This is what is known as Pfeiffer's phenomenon. In his first experiments, instead of mixing the bacilli with immunized serum and injecting the mixture into a non-immunized animal, Pfeiffer injected the bacillus into the peritoneal cavity of a highly-immunized animal. The bacilli, which are not of the same species as the one which has been used to immunize the animal, do not undergo the degeneration above described to any marked extent.

3. The microbe to be tested is mixed with the blood-serum of an animal strongly immunized against the specific micro-organism which is looked for. A hanging-drop preparation is made with the mixture and examined under the microscope.

This method was used by Metchnikoff (in peptone-bouillon or water no production of indol), with various modifications, to elucidate certain points raised in the controversy between him and Pfeiffer; it has been improved by Bordet (in presence of minute traces—$\frac{1}{100}$, $\frac{1}{150}$, $\frac{1}{200}$, $\frac{1}{250}$—of serum of an animal immunized against typhoid fever, immobilization and agglomeration well marked by any of the methods mentioned above). By

this method Bordet has observed *in vitro* the phenomenon observed as occurring only *in vivo* by Pfeiffer, and the agglomerative reaction previously described by Charrin and Roger, Metchnikoff, and others.

A young culture (twenty-four hours old) of the doubtful microbe is mixed with 5 or 7 cubic centimetres ($1\frac{1}{4}$ or $1\frac{3}{4}$ fluidrachms) of bouillon, or of 0.60-per-cent. NaCl solution. To 2 drops of this emulsion 1 drop (or less) of the serum (recently obtained) of an animal immunized against the specific microbe under investigation is added. A hanging-drop preparation is made with the mixture. (When a complete production of Pfeiffer's phenomenon is wanted, a small quantity of the fresh serum of an ordinary animal is added to the mixture.) If the microbe tested be the specific one —say, the vibrio of cholera—it is rapidly immobilized, then it runs into clumps, and, when fresh serum has been added, the vibrios are seen to undergo granular degeneration. Other vibrios than the one against which the serum has been immunized do not, in the same degree, undergo these changes. Bordet considers this reaction quite as specific as Pfeiffer's reaction.

4. The microbe to be tested is mixed with the more or less diluted serum of an animal immunized against the special microbe under investigation. The mixture is placed in a test-tube and allowed to stand for some time. A positive reaction is indicated by the formation of a precipitate composed of clumped bacilli and by the supernatant fluid becoming clear. A negative reaction is shown by the turbidity of the fluid remaining general and no precipitation being formed.

This is the method specially introduced by Max Gruber and Durham (the bacillus was very motile in neutral bouillon cultures). These observers also used a microscopical method much resembling Bordet's, and they insist especially on the importance of a certain degree of dilution, as Pfeiffer had done also, in connection with his own method.

The bacillus to be tested is grown for from twelve to twenty-four hours on agar. A loopful of the culture (= about 3 milligrammes—$\frac{1}{20}$ grain) is made into an emulsion by thorough mixture with 0.5 cubic centimetre ($7\frac{1}{2}$ minims) of bouillon; 5 or 10 milligrammes ($\frac{1}{12}$ or $\frac{1}{6}$ minim) of the serum of an animal strongly immunized against the special microbe under investigation are mixed with enough bouillon to get an amount of fluid equal to 0.5 cubic centimetre ($7\frac{1}{2}$ minims). The emulsion of the microbe to be tested and the diluted specific serum are mixed. The mixture is kept in a narrow specimen-tube, measuring three-eighths inch in diameter. Thirty minutes or sixty minutes later—if the bacillus is of the same kind as the one which has been used to produce the specific serum, and if the serum be potent enough—the microbes will form a sediment at the bottom of the tube, and the supernatant fluid will be clear, or nearly so. The sediment will be composed of clumped bacilli. If, on the contrary, the microbe belong to a totally different species from the one against which the serum has been immunized, the contents of the tube will remain uniformly clear.

In his work Widal adopted several of the methods just described, with slight modifications. Pfeiffer's method, very important from a theoretical

point of view, was evidently not applicable, but the three others were suitable. He used specially two methods, which may be described as the quick and the slow.

1. *Quick Method.*—To 10 drops of a twenty-four- or forty-eight-hour-old, neutral bouillon culture of the typhoid bacillus 1 drop of the blood-serum to be tested is added. The serum and the culture (which should be uniformly cloudy) are mixed together in the sterilized trough of the hematimeter. A drop of this mixture is taken and placed on a slide, covered, and examined at once under the microscope. A positive reaction, showing that the serum comes from a case of typhoid fever, is indicated by the bacilli becoming motionless and running together to form clumps, which are of various sizes. Sometimes the bacilli are not immobilized at once, and the agglomeration takes place slowly. In such cases the reaction may not be distinct for a quarter, half, or even several hours.

2. *Slow Method.*—This is the one used by Widal in his first experiments. It resembles much that followed in Charrin and Roger's experiments, from which it differs by the serum being diluted instead of being used undiluted. One part of the serum to be tested is added to 10 or 15 parts of bouillon. This mixture is inoculated with a typical bacillus typhosus. The tube is incubated at a temperature of 37° C. (98.8° F). Twenty-four hours afterward the culture is examined. If the reaction is positive, a more or less abundant sediment, composed of clumps, will be found at the bottom of the test-tube, and the supernatant fluid will be more or less clear. In a negative case the fluid would be uniformly turbid.

After mentioning Widal's method the author describes the one used by Grünbaum (at least ten cilia could be demonstrated in well-stained specimens). The chief modifications introduced by this observer are (1) the use of a U-shaped tube to separate blood-serum by centrifugalization; (2) the dilution of the blood-serum by means of a graduated pipette, the blood being diluted sixteen times; (3) the preparation of a hanging-drop for examination under a high power of the microscope (oil immersion); (4) a time-limit of thirty minutes for the observation of the phenomenon. Although the reaction can be very well seen by using the method described by Grünbaum, which resembles closely that originated by Bordet, Delepine is convinced, from personal experiments carried out in his laboratory more than two months before the publication of Grünbaum's first paper, that many of the precautions he suggests are superfluous and, by introducing complications, may interfere with the efficiency of the test. He alludes here not to investigations in which one wants to experiment on the properties of the various elements of the blood, but to those which have for their object a clear and unambiguous diagnosis of typhoid cases and a rapid estimation of the potency of the serum of such cases.

Referring to his own experiments, he stated that his first care was to obtain a typical culture of the typhoid bacillus. Among those he had isolated from typhoid spleens during the last four years he selected one separated two years ago, highly pathogenic at the time, and which, ever since, had invariably given all the reactions which are now associated with the Eberth bacillus.

The next step was to test the action of the blood of various individuals on that bacillus. The following types of cases were selected:—

1. Normal individuals of various ages, having never had typhoid fever or having recovered from it for a great number of years (over twenty in one case).

2. Patients affected with various febrile diseases, certainly not enteric fever, and who never had had typhoid fever.

3. Patients affected with enteric fever in whose cases the clinical features left absolutely no doubt as to the diagnosis. The patients were of various ages, in different stages of the fever, more or less severely affected, and suffering from various complications.

With material thus obtained the test was applied in various ways suggested by the known methods already described, and it was found that by any of these methods it was possible to obtain the reaction in cases of typhoid fever.

The blood was used quite fresh and entire, dried and entire, coagulated, separated by centrifugalization, and in every case the reaction could be obtained more or less clearly in cases of the fever.

The blood was used in various dilutions from $\frac{1}{2}$ to $\frac{1}{200}$, and it was found that the dilution $\frac{1}{10}$ was the most suitable. In very exceptional cases it seemed that the proportion $\frac{1}{6}$ gave better results than $\frac{1}{10}$. In several instances in which the reaction appeared slowly, a proportion of serum equal to $\frac{1}{20}$ or $\frac{1}{30}$ seemed insufficient to bring about a clear reaction within two hours. The bacillus was grown on various media, such as ordinary nutrient agar, gelatin, and bouillon, or carefully neutralized peptone bouillon. Young and old cultures were used. The cultures in neutral bouillon were invariably found to be the best when not more than twenty-four hours old.

It was soon apparent, however, that all the methods were not equally good; thus:—

1. The test-tube method recommended by Durham and Gruber failed to give clear results much more often than the microscopical method introduced by Bordet. When the serum was weak the precipitation was incomplete. When very small quantities of half-dried blood, such as are often obtained from weak anæmic patients, and specially from young children, arrived at the laboratory, it was difficult to obtain enough clear serum to make up the mixture to a sufficient bulk. Then occasionally the blood of people not affected with typhoid fever produced a partial precipitation. For those reasons he soon discarded the method.

2. The hanging-drop method introduced by Bordet and used by most observers gave very good results, but in measuring the fluid with pipettes and mixing the emulsion of bacilli and the serum in small capsules, or even on slides, Delepine soon noticed that extraordinary care had to be taken to avoid errors. Graduated pipettes were unsuitable when eight or ten observations had to be conducted within a short time, unless one had as many pipettes to dispose of, for it was not only necessary to wash the pipettes thoroughly, but also to boil them in water to destroy all traces of the substances causing agglomeration. The same thing had to be done with the troughs,

slides, and cover-glasses used. At first he replaced graduated pipettes by ordinary capillary pipettes, which were destroyed after each observation, the dilutions being made by counting the number of drops, the same pipette being used for counting drops of diluted serum and of the emulsion of the bacillus; but this implied much waste of time and also of material; and, when one has only a small quantity of serum, it is not always easy to get a small drop out of it, as the serum has a tendency to adhere to the point of the pipette. Exact measurement of the dilution becomes difficult under those conditions.

3. He finally adopted a method the objects of which are:—

(1) To permit the measurement of extremely small quantities of blood.

(2) To simplify the apparatus required so as to diminish chances of contamination.

(3) To make it easy to destroy rapidly by heat all traces of serum which may remain attached to the measuring instrument.

(4) To obtain conditions under which spurious clumping is not likely to occur.

All the apparatus required consists of:—

(*a*) A sterilized lancet-shaped needle.

(*b*) The same pipette in which the blood has been collected, and of such diameter that it, after it has been broken across the platinum loop, which is used for measuring the serum, can easily be introduced into it if necessary.

(*c*) A platinum loop measuring about one millimetre in diameter, and holding about two milligrammes ($\frac{1}{3}\frac{1}{2}$ minim) of fluid.

Each loop has a definite capacity which can be easily estimated by direct weighing. A glass slip is placed on one of the pans of a delicate chemical balance. This is exactly counterpoised. A drop of fluid is then taken with the loop and deposited on the slip; this is immediately weighed by means of the rider before evaporation has had time to cause a sensible diminution of weight. Then 4 more drops are rapidly added in such a way that they do not touch each other, and the rider being moved so as to counterbalance a weight five times greater than that of the first drop, the beam should remain horizontal, and so on.

(*d*) Slide and cover-glass, absolutely clean; if they have been used before for the test they should be boiled in water.

(*e*) A tube of culture of the typhoid bacillus in neutral bouillon (twenty-four hours old at most). This tube should be free from clumps, and the bacillus should be actively motile.

When the typhoid bacillus is re-inoculated in neutral bouillon daily for weeks or months, there comes a time when, all of a sudden, all the cultures will clump spontaneously, or on the addition of any serum; this is not due to a failure in the growing power, cultures in alkaline bouillon showing the same property. In fact, the importance of the reaction of the mixture of serum and culture is of great importance. Dr. Sidebotham will shortly give the results of a number of experiments bearing on this point. The same thing may be observed in cultures grown repeatedly on agar. If, however, cultures on agar, gelatin, or solidified blood-serum are made at

longer intervals, and the bouillon tubes are inoculated daily from these cultures on solid media, the difficulty caused by this spontaneous clumping can be got rid of, at least for a time. It is well to keep up the virulence of the typhoid bacillus by the usual method of re-inoculation.

The procedure is as follows: With the sterilized loop nine drops of the evenly turbid bouillon culture are taken and deposited separately on the clean slide or cover-glass.

The platinum loop is again sterilized, and, when cool, 1 drop of the blood is taken and deposited also separately on the cover-glass or slide.

The 10 drops are then mixed thoroughly and rapidly together.

If the mixture has been made on the cover-glass the cover is placed on the slide moist-face downward, and gently pressed so as to obtain an even film. If the mixture has been made on the slide, it is simply covered with a clean cover. In either case the preparation consists of a thin film of culture mixed with the serum investigated, and a certain number of red blood-corpuscles, separating the slide from the cover-glass so that a capillary space of pretty uniform thickness is obtained.

It will be noticed that instead of separating entirely the blood-corpuscles from the serum he tried, on the contrary, to retain a part of them in the preparation. They do not interfere in the least with the reaction, and they have the advantage of acting as supports for the cover-glass, and of causing the film in all preparations to be nearly of uniform thickness. Under these conditions the bacilli are free to move about; and when the preparations are kept in a moist chamber they can be observed from day to day for more than a week.

(*A*) *When the blood tested is that of a non-typhoid patient*, the bacilli remain diffused all through the preparation; they move freely about, and even when kept for days they hardly ever show any tendency to form good clumps. This absence of characteristic clumping is observed even when the proportion of blood is one-fifth or even one-half. An imperfect clumping without loss of motility has been observed in a few cases after twenty-four hours, but the appearance of the preparation in such cases is very different from what is observed in cases of typhoid fever.

The motion of the bacilli is quite characteristic; they move at different rates, some, especially the very short ones, darting across the field, and disappearing in a few moments; others pursue a zigzag course. Some of the long ones are less active, and progress by an undulating motion; some are almost motionless. The actively motile bacilli, by striking against blood-corpuscles, keep them in constant motion. The power of some of the bacilli is such that they often drag or push the corpuscles through a portion of the microscopical field. The bacilli have generally seemed to me to be most active after they have been in contact with the blood for a short time. After a few hours they generally become less motile, but not altogether motionless, and the progressive motion is seldom lost before several days have elapsed.

When clumps are formed they are generally very small, very few, and composed of bacilli which are quite motile still and are very often seen to separate themselves again. Owing to the activity of the bacilli, these small

imperfect clumps are seen to alter in shape. As this phenomenon is seldom observed, and as, when it occurs, it does not take place till after several hours have elapsed, it is not (under the conditions explained above) a serious source of difficulty.

When bacilli are kept for days under observation, they multiply, and many of them become very long.

In making these observations it is not necessary to use very high microscopical powers, unless one wishes to study the minuter changes taking place in the bacillus, in which case the best immersion lenses are necessary. The bacilli can very clearly be seen with a magnification of from two hundred to three hundred diameters, and the formation of clumps can be easily recognized with a magnification of fifty or less. In fact, it is quite possible to see with the naked eye a marked change in a drop of a mixture in which the agglomerative phenomenon is taking place.

(*B*) *When the blood tested is that of a typhoid patient* in a suitable stage of the fever (that is, after the third or fourth day from the beginning, and better still after the seventh or eighth day), the phenomena observed differ according to whether the serum is potent or not.

When the serum is potent changes take place so quickly that, however rapidly the mixture is covered and placed under the microscope, many of the bacilli will already have become nearly motionless, and several clumps will have formed before the preparation can be seen. The greater part of the bacilli, however, will still be actively motile,—in fact, they seem very often to be in a state of extraordinary activity, as if they were under the influence of stimulation. Soon, however,—that is, from two to five minutes,—they gradually lose their power of translation, they seem paralyzed, and exhibit nothing more than an oscillatory motion, which after a time becomes feebler, and cannot be distinguished from Brownian movement. At the same time clumps are forming rapidly. In from five to thirty minutes hardly any free bacilli remain between the clumps, which may be of various sizes. The presence of the corpuscles does not affect this phenomenon of agglomeration. The corpuscles behave like perfectly indifferent bodies. The bacilli are not attracted by them; they do not seem either to be clearly repelled, but it is worth noticing that clumps very seldom inclose a corpuscle or form against them.

All bacilli do not behave exactly in the same way; some of the very small bacilli, almost coccus-like, very often retain their motion for a longer time than the others. In some parts of the preparation the bacilli remain swarming, while in other parts they are already completely agglomerated. He thought at first that this was the result of imperfect mixture, but the perfectly even distribution of the red blood-corpuscles (when these are retained) showed that this was not the case. Within a few minutes, however, all these differences may disappear, and the preparation present a uniform appearance.

When the serum has a feeble agglomerating power the changes described above take place much more slowly and less completely. The motility of the bacilli is generally considerably reduced (after being first increased), but it may never be entirely abolished in a $\frac{1}{10}$ dilution.

The clumps form gradually; they are, in most cases, sufficiently numerous at the end of half an hour to make the diagnosis possible, but in some cases one may have to wait one and even two hours before the preparation takes a very characteristic appearance. These cases are few.

Both in the case of the complete and of the incomplete reactions just described, the agglomeration remains clearly distinct for days after the preparation has been made. In some cases the bacilli remain motionless, but in most cases many bacilli regain their activity.

There is also marked evidence of growth. The bacilli forming the clumps may reach a great length, but the filaments thus formed remained clumped together. In very few cases the bacilli become granular and indistinct; this has usually been observed when the reaction has been intense.

Before concluding, he added that when the question of applying this test to diagnosis, and the method of collecting the blood had to be considered, he thought it necessary, in order to remove chances of contamination, to recommend (1) that the skin from which the blood was obtained be sterilized; (2) that a needle which had not possibly come in contact with any other blood, and been thoroughly sterilized, be used; (3) that nothing but blood collected in sterilized hermetically-sealed pipettes be sent to the laboratory. Further experience has convinced him that all these precautions are useful.

Referring to the results obtained by Dr. Sidebotham and himself with this method, he stated that they entirely confirmed the results obtained in a series of over fifty hospital cases. In applications of this kind the technique must be such that scientific investigations will not suffer from accidental circumstances which would vitiate the results.—*British Medical Journal*, April 17, 1897.

Selections from Reports of Members of the Annual's Staff of Correspondents.

China.

DR. R. COLTMAN, JR.,

CORRESPONDING EDITOR FOR SURGERY AND GENERAL MEDICINE.

All books, theses, monographs, etc., published in China should be sent to

DR. R. COLTMAN, JR.,
Peking, China.

Fistula in Ano.—During the past year I have operated on thirty-two cases of fistula in ano, none of which showed any sign of tuberculosis in other parts of the body; all promptly became well when the sinuses were laid open. The average time for entire healing was twenty-six days, but many were long-standing cases with several long sinuses. Twenty-one cases had but 1 opening into the rectum, seven had 2 internal openings, three had 3, and one had 6 openings. The latter required seventy-two days for a cure and several operations. It is common to find openings into the scrotum, and several instances of the so-called horseshoe fistula are included in the list. My plan of procedure is to give a cathartic

the morning before operation,—usually 1 or 2 pil. cathart. comp., U. S. P.; wash out the bowel with an enema of boiled water just previous to operation. Then on a grooved director open the sinuses farthest from the rectal opening, and, if only one opening into the bowel exist, cutting that at the same operation. If more than one opening exists in the bowel I cut one at a time, at intervals of ten days, until all are well. Immediately afterward either the stick of caustic potash or tincture of iodine is applied on a pledget of cotton, wiping thoroughly the fistulous tract. I then insert a hempen roll, the size of a lead-pencil, well greased with vaselin, to prevent surface closure. One daily dressing of this kind suffices. No opium is given, the bowels being allowed to move at will. In several cases where the ulcer healed slowly I have had success by applying on the hemp daily vaselin with from 10 to 20 drops of turpentine to the ounce. [ROBERT COLTMAN, Jr., Peking. Report of January 20, 1897.]

Poland.

DR. J. DRZEWIECKI,

Redaktor Korespondent z działu polskiej literatury tyczącej się: Medycyny ogólnej i lecznictwa; pediatryi; akuszerzyi; ginekologii; laryngologii; otologii; hygieny; demografii; medycyny sądowej; histologii; patologii; bakteryjologii; anatomii; fizjologii.

Wszystkie pisma lekarskie, dzieła, rosprawy, monografije, itd., w języku polskim wydane, a tyczące się przedmiotów powyższych, winny być nadsyłane pod adresem

DRA. DRZEWIECKIEGO,
87. Krakowskie Przedmieście,
Warszawa,
Królestwo Polskie.

Phosphorus in Osteomalacia.—KASMINSKI has treated at Professor Jordan's clinic in Cracow 13 cases of osteomalacia in women in which he obtained excellent results with phosphorus. The patients were from 26 to 40 years old, all multiparæ. The disease had lasted some years in all, and in 1 as much as eleven years. In 5 cases the patients walked with difficulty before the treatment, being obliged to support themselves upon canes and the surrounding objects; the rest were unable to leave their beds, and two could not even move because of the pain. After the phosphoric treatment all began to walk without any support. The treatment lasted from four to fourteen months. The cases being watched from six months to three and one-half years after the course of treatment, it was found that relapses occurred in 2 cases in one year and a half after treatment, and lasted a comparatively short time (four months). In 1 case pregnancy ensued. According to the author, the success of the phosphoric method depends on (1) long-continued treatment and (2) large doses. The treatment must last for months and even years, and only then, in his opinion, will there be no relapses. He gave the phosphorus in codliver-oil, beginning with 0.01 gramme ($\frac{1}{6}$ grain) in 50 grammes ($1\frac{2}{3}$ ounces) of oil, 2 teaspoonfuls daily, afterward gradually increasing the dose to 0.035 gramme ($\frac{1}{2}$ grain) in 50 grammes ($1\frac{2}{3}$ ounces) of oil and giving the teaspoonfuls daily. The whole quantity of phosphorus taken by the patients during the entire treatment amounted to 0.5 to 1.3 grammes ($7\frac{1}{2}$ to 20 grains) and the codliver-oil from 1100 to 3250 grammes. During the treatment the general nutrition of the patients increased considerably.—*Przeglad Lekarski*, Nos. 47–49, 1896.

[Although the author remarks that he has not observed any bad con-

sequences from such treatment, it is, nevertheless, difficult to understand that phosphorus taken in such large quantities should have no action upon the parenchymatous organs and especially on the liver.—Cor. Ed.]

Russia.

DR. J. DRZEWIECKI,

РЕДАКТОР-КОРРЕСПОНДЕНТ изъ области русской литературы, касающейся: Общей медицины и терапіи, педіатріи, акушерства, гинекологіи, ларингологіи, отологіи, гигіены, демографіи, судебной медицины, гистологіи, бактеріологіи, анатоміи и физіологіи.

Всѣ періодическія, медицинскія изданія, сочиненія, статьи, монографіи и т. д., изданныя на русскомъ языкѣ и касающіяся вышеупомянутыхъ предметовъ должны быть адресованы на имя

ДРА ДРЖЕВЕЦКАГО.

87 Краковское Предмѣстье,

Варшава.

Rectal Injections.—PROFESSOR SAVELIEFF, of Moscow, has investigated the question of clysters, experimenting on rabbits and human cadavers. The pressure of injections into the rectum was measured by means of mercurial manometer and the liquid employed was dyed with India ink. After applying a pressure of from 5 to 7 centimetres and raising it 9 centimetres, the liquid began to flow from the mouth in from thirty to forty minutes. In a live rabbit he at first applied slight pressure (2 centimetres) and afterward increased it to 6 centimetres. At the end of two hours the black liquid began to flow out of the mouth of the rabbit; and dissection showed traces of the India ink all over the digestive tract. The pressure from 11 to 14 atmospheres of mercury (which corresponded to 149.6—190.4 centimetres of water) was quite sufficient to produce tearing of the wall of a human intestine. In view of the above the author insists that high injections absolutely require the assistance of the physician and should be controlled by the manometer in all cases, especially in those where the supposition as to the morbid changes in the walls of the intestines is not positively excluded.—*Work of the Society of Russian Physicians*, in Moscow, 1896.

Changes in Ovaries in Old Age.—OTROSHKEVITCH has investigated the changes in the ovaries of old women, and arrived at the following conclusions: 1. Diminution of volume of ovaries advances with age and depends upon the predomination of the fibres of connective tissue. 2. The disappearance of epithelium covering the surface of the ovaries must be regarded as one of the constant symptoms of changes in old ovaries. 3. The absence of ripe ovules and degeneration represent the most important and characteristic changes of old ovaries. 4. Hyaloid degeneration of arteries gradually increases with age, and in very old age we meet with very high degrees of this degeneration. 5. Fatty degeneration of the cells is moderate, and seems to depend on the feeble nutrition of the ovaries. 6. Direct connection between degeneration of the vessels and cessation of the functions of the ovaries does not seem to exist, as ovaries cease their functions when the quantity of degenerated vessels is very limited, its nutrition being, therefore, but little changed. The principal part in this complicated process is probably played by the nervous system.—*Inaugural Dissertation*, St. Petersburg, 1896.

Clinical Notes and Therapeutic Suggestions.

Baths and Gymnastics in Arteriosclerosis.—J. Groedel, of Bad-Nauheim, who has given special attention to the treatment of arteriosclerosis, in answer to the self-propounded question "May any person whatever with demonstrable arteriosclerosis, or where such may with probability be assumed, be allowed to take baths?" concludes that, although the increased blood-pressure, "considered as the usual consequence of treatment by the Nauheim baths, may, at first sight, seem to indicate that every patient with arteriosclerosis should be excluded from a treatment by baths, a further increase of the high blood-pressure usually found in arteriosclerosis must not only surcharge the heart more than is already the case, but also create the danger of the bursting of a cerebral miliary aneurism, so often present in cases of arteriosclerosis." He has by numerous observations been able to convince himself that baths can be prescribed for these patients "in such a manner that the increase of blood-pressure does not take place, or only in a very slight degree." If the temperature be kept almost at the point of "indifference,"—that is, about from 92° to 93° F. (33.2° to 33.8° C.)—the primary acute increase of blood-pressure caused by the contraction of the cutaneous vessels, and most to be feared, will be very slight, and if there be carbonic acid in the bath at the same time will quickly disappear. If the skin of the patient be cooled somewhat by moistening the parts particularly sensitive to cold before entering the bath, the avoidance of that primary increase of blood-pressure, or, indeed, any shock whatever, will be the more certain. A similarly good effect is produced when the patient is only allowed to take half-baths and the exposed parts of the body are wrapped up so as to prevent cooling. In most cases the amount of water can be increased little by little at each bath until a full bath is at length attained, but even then it is advisable to let the patient only submerge his body by degrees. Placing cold bandages on the bather's head is often indicated. By proceeding cautiously in this manner he has never had an unfortunate case in the course of a practice of twenty-two years in Nauheim. Under what conditions can a course of baths be indicated or beneficial in cases of arteriosclerosis? It may be desirable to give baths for some other disease when arteriosclerosis is present. It is mostly a question of diseases based on the same etiological principle as arteriosclerosis itself, or such as usually lead to it. By combating these we can at the same time retard the progress of the sclerotic process in the vessels. He mentions gout, chronic articular and muscular rheumatism, arthritis deformans, and neurasthenia.

That it is possible completely to remove existing sclerotic degeneration by any means he does not believe; we are, however, undoubtedly able to retard the deleterious process. The first thing is, of course, the removal of all conditions disposing to arteriosclerosis. One of these, for which treatment by baths is especially serviceable, he has already mentioned. Of the greatest importance is a proper diet and general regimen, to which the

patient must be trained, and this is easier and more successful in a watering-place than at home. But even a direct influence of the baths on the sclerotic process, and with it a limitation of the disease, is, in his opinion, possible. Having considered all the theories that have been propounded regarding the origin of arteriosclerosis, he concludes that a disturbance in the nutrition of the walls of the vessels must play an important part, and that functional troubles of the vascular innervation are perhaps the primary cause. The acknowledged tonic effect of the baths on the nervous system may, of course, be taken into especial account for the vasomotor part of the process. Disordered nutrition in certain organs can, no doubt, be entirely removed, or, at least, improved by means of baths; why not also disordered nutrition of the vascular system?

Of particular importance is a course of baths in cases of arteriosclerosis when, owing to this change, the heart is no longer able to satisfy the increased claim on its functional capacity. When disordered circulation is caused by arteriosclerosis, the manifold consequences of cardiac insufficiency, if recent, sometimes disappear, and if more advanced can often be decidedly improved. We find not infrequently that in the course of a "kur" the pulse improves considerably as regards frequency, quality, and rhythm. On examination the heart also shows a corresponding change for the better compared with its former state. Yet there are cases in which the success is only slight, especially those in which the arteriosclerosis has attacked the greater vessels in a more extensive manner or has even led to a dilatation of the aorta and aortic regurgitation; then, again, little success is attained in cases in which there is already an advanced degeneration of the myocardium.

Baths are contra-indicated for arteriosclerosis when there is such a high degree of insufficiency of the cardiac muscle that digitalis and the other usual drugs remain without effect. For patients with remains of apoplexy the following rules may be laid down: If apoplectic fits have already occurred repeatedly, every kind of bath treatment must be avoided. After the first attack six months, at least, must have passed before a course of baths is prescribed, so as to be, to a certain extent, sure that there is no tendency to recurrence. For those persons, however, whose apoplectic fit has occurred more than a year previously, a course of baths may be prescribed without any misgiving whatever. In cases of sclerotic contraction of the kidneys (as well as of contracted liver in cirrhosis) treatment by baths is of little use, both as regards the sclerotic process in these organs and the secondary disturbances in the organs of circulation which are dependent on it. For patients of this class who are very much enfeebled baths are absolutely contra-indicated. The same may be said when arteriosclerosis is combined with diabetes, if patients are very much enfeebled. But if there be no great weakness patients usually feel very well during a course of baths of not too severe a character, if a corresponding mode of life be observed. Patients with aortic aneurism should only be advised to take a course of baths when the disease has assumed a more stable character. Having, in the course of years, treated a comparatively large number

of such patients, he has usually observed a decided improvement in their general state of health, and likewise in the state of their circulation, without ever having had an unpleasant incident to record. As regards angina pectoris following sclerosis at the commencement of the aorta near the origin of the coronary arteries, or sclerosis of these arteries themselves, he has seen many patients with all the appearances of angina pectoris take a course of baths with very good results; but others have derived no advantage from it whatever, or only very little. That in the cases first mentioned I always had to deal with true angina pectoris (sclerotic) I cannot, however, venture to maintain.

The mechanico gymnastic treatment is of less importance for arteriosclerosis than the baths, and can only be applied to a limited extent. A gentle, not too prolonged, general massage is almost always permissible; likewise passive movements may be employed, as thereby only relief of the heart is accomplished without any incitement to the energetic output of force and without any increased blood-pressure. As regards the circulation of the blood itself, the result is not usually very great, whereas for the above-mentioned diseases that often accompany arteriosclerosis, such as rheumatism and gout, massage is often beneficial. Resistance gymnastics cannot be allowed in cases of universal arteriosclerosis of a high degree. The increased energy of the heart-action caused by the muscular exercise is only compensated in an incomplete and unsatisfactory manner by a corresponding dilatation of the arteries, and therefore a dangerous raising of the blood-pressure and surcharging of the heart takes place. Instead of an improvement of the cardiac insufficiency in such cases, the opposite is brought about; whereas if the arteriosclerosis be not advanced or be apparently confined to only a few vascular regions an attempt with resistance gymnastics may be made, but gymnastics must be very gentle,—that is, the exercises should be made with little resistance and all trying movements avoided. For this purpose he prefers the Swedish manual gymnastics as modified by the late A. Schott, and which he has made use of since the publication of his first paper on this subject in 1881. The mildest form of these manual-resistance gymnastics resemble passive gymnastics very much in effect. The incitement to venous discharge from the capillary regions and the peripheral veins, as well as the easing of the arterial current—that is, relief of the heart—surpass, by far, the increase of the cardiac action which is caused by motor impulse and other circumstances. As regards the so called Zander mechanical gymnastics for those patients, only those apparatuses can be made use of which serve for passive movements, massage, or vibration. Still, in exceptional cases, some other apparatuses are applicable.

Patients who have once had apoplexy are naturally not to be treated by resistance gymnastics, nor those patients affected with aneurism. Although it would appear that the same rule is applicable to angina pectoris, he had sometimes seen a good result produced by resistance gymnastics in this disease. Whether in these cases it was a question of sclerosis of the coronary arteries or not is difficult to say; he can only state that the

patients showed unmistakable signs of arteriosclerosis. Of course, in these cases, too, the movements must be of the easiest kind, and must be desisted from altogether, as previously explained, if the peripheral arteries are very rigid.

Some patients feel greatly benefited by vibrations applied to the back by Zander machines. Last year he had had a patient under treatment who was able to cut short the attacks of angina pectoris by applying vibration to the cardiac regions with a small special apparatus. Here, however, Groedel cautions the reader not to regard what has been stated as universally applicable. We must in each case cautiously feel our way, try whether gymnastics can be borne, and if there be the slightest doubt we must desist.

As to the "Terrainkur" (pedestrian exercise), many patients with arteriosclerosis complain of oppression even while walking up gentle ascents; but sometimes we hear that such patients feel very well while walking slowly uphill. As a rule, however, he should not advise methodical hill-climbing to be used therapeutically for persons with arteriosclerosis. Fifteen years ago it happened that a patient with angina pectoris under his treatment, while attempting to climb a hill near Nauheim, in spite of his having forbidden it, fell down dead.—*The Lancet*, April 17, 1897.

Symptoms of Chloroform Collapse.—Guthrie reviews this interesting subject. The symptoms are in all cases alike, and are as follow: Sudden and complete blanching of the face takes place, leaving it of a ghastly-gray hue. The term "pallor" conveys no idea of the actual appearance. The eyelids fall open, the eyeballs are fixed in the upward position, with pupils fully dilated as under extreme atropinism. At the same time the cornea becomes glazed and sticky, giving an appearance which, once seen, is never forgotten. It can only be described in a somewhat fanciful manner by saying that the light seems to fade from the eye as does the color from the cheek and lips. Probably it is due to flaccidity of the cornea from decrease of intra-ocular tension, noticed by Dubois (Soc. de Biologie, 1884). It is the undoubted look of death. I have seen it at many a death-bed, but never under any other circumstances except those at present considered.

The appearance of a person in a dead faint, or just after a severe accident, is no more than the shade of that which obtains in cases of chloroform collapse.

The pulse and cardiac impulse are at these times no longer to be felt. Respiration commonly ceases at the moment when the blanching and stoppage of the pulse occur, but at times a few feeble and irregular inspiratory gasps are subsequently drawn. The patient is to all appearances dead. Whether the heart actually ceases to beat at such times will probably never be ascertained, for the moments are too valuable to be spent in delicate investigations on this point. Neither is it possible to affirm from clinical observation that the heart becomes dilated, as in the experiments of MacWilliam and Johnson on animals. Time cannot be wasted in mapping out

the area of the heart's dullness in a patient who is in imminent danger of death.

In some cases lividity, accompanied by turgescence of the veins of neck and face, immediately precedes the blanching and look of death, and is coincident with the stoppage of respiration. Possibly dilatation of the heart has actually taken place, and the condition is that of the true cardiac syncope described by Snow.

It might be objected that, were dilatation present, the cyanosis should continue, and not give place to pallor; but, possibly, as the heart fails regurgitation takes place into the inferior cava, and allows the blood from the distended veins of neck and head to enter the right heart.

In children, cyanosis, except where actual mechanical asphyxia has been produced, is less apparent than pallor. Under treatment, children almost invariably recover from these alarming conditions, whereas in adults the reverse is unfortunately the case.

As a rule, the preliminary signs of collapse are sufficiently well marked, and if observed in time many a catastrophe may be averted.

These signs are circulatory and respiratory.

The circulatory sign is the presence of increasing pallor, not amounting to absolute blanching.

Failure of respiration is marked by a peculiar type of breathing, in which expiration is extremely short and inefficient, while inspiration is sudden, forcible, and gasping, often accompanied by falling of the lower jaw, and spasmodic clonic contraction of the chin-depressers and muscles of the neck. The inspiratory gasps are irregular and broken, and occur with increasing slowness until the condition of sudden collapse ensues.

This type of breathing is precisely similar to that which is often seen in a patient dying of respiratory failure from other causes.—*Clinical Journal*, April 14, 1897.

Treatment of Goitre.—Charles L. Gibson, of Brooklyn, gives an excellent review of an article by Bruns on the evolution of the modern treatment of goitre, read before the Twenty-fifth Congress of German Surgeons. Two decades ago the only treatment in vogue for goitre was the old and untrustworthy remedy iodine. At the Sixth Congress of German Surgeons, in the year 1877, attention was called by Rose, based on his own experience, to the radical cure of goitre by extirpation. This communication was particularly timely, as the beginning of the antiseptic era prepared the ground for the greatest surgical undertakings. It is interesting to note how rapidly the excision of the thyroid and improved results followed. In twenty-seven years prior to 1877 only 150 excisions of the thyroid had been recorded, with a mortality of 21 per cent.; while in the five years following 1877 there were 240 operations, with 12-per-cent. mortality.

Operations for extirpation of the thyroid lost their greatest drawbacks and dangers,—secondary hæmorrhage and wound infection,—not only with the development of antiseptic measures, but also with the perfection of methods and technique of operation.

Prior to this time the operation had been conducted like in ordinary extirpations of a tumor, the goitre being superficially isolated and all blood-vessels ligated as cut, the result being that the same vessel was often divided in different places and required repeated ligation.

The separation of the cellular tissue was often pursued too far, resulting in extensive bleeding, requiring ligatures *en masse*, obscuring the entire operative field and jeopardizing the nerve-trunks. This uncertain method of atypical tumor extirpation was now transformed into the typical extirpation of a viscus, an absolutely safe operation, and, for the experienced operator, a bloodless and complete procedure. The credit of devising a systematic operation belongs, above all, to Billroth, and next to Kocher, who essentially perfected it. It depends on the certain principle of exact anatomical knowledge concerning the course of the arteries and veins of the thyroid, and of the recurrent nerve, so that the essential object of the operation is the typical exposure and isolated ligation of the main arteries and veins at their well-known situations, and the speedy and bloodless isolation of the tumor.

Another important advance was the experience demonstrating the needlessness of tracheotomy, which many operators formerly had considered absolutely necessary in facilitating excision of the goitre and preventing the after-collapse of the trachea. Not only does tracheotomy interfere with aseptic wound-healing, but before as well as after excision of thyroid, it is absolutely unnecessary even in the greatest degrees of compression of the trachea. The respiratory disturbances immediately subside after removal of the goitre. It may be laid down, as a rule, that even in the greatest dyspnœa and danger of suffocation the operation which is indicated is not immediate tracheotomy, but immediate extirpation of the goitre. The total extirpation of the thyroid as a radical cure, as recommended by Rose, advanced in favor more and more, and reports of four hundred such cases were recorded. Its popularity was due to the belief that it prevented recurrence from remaining portions of the gland, and apparently was attended with no greater difficulty and dangers than the partial operation. No doubts existed as to the propriety of removing the whole organ, as at that time the physiological importance of the thyroid was not known. Very soon, however, came the reports of severe after-effects of total operation, such as tetanic convulsions, severe enough to cause death, and that chain of manifestations included under the term "cretinism." An early report from Reverdin, in 1882, failed to attract attention. The next year, at the Twelfth Congress Kocher communicated his report on "cachexia strumipriva," which made a marked impression. Surgical opinion did not at once universally accede to these views as to the existence and cause of the disease, and not until numerous victims of this condition had been discovered was this long-neglected gland recognized as an important vital organ.

Total excision of the thyroid, formerly the routine procedure, was at once forever stricken out as an operation of physiological incompatibility. Conservative surgical methods were now sought for, having for their object the removing of the goitre, but not of the entire thyroid gland. A time-

honored method of treatment, inaugurated at the beginning of the century by Phillip von Walther, and lately revived by Wölfler, now came into vogue. This is the typical ligature of the thyroid arteries to promote artificial atrophy of the gland. The operation was, however, scarcely performed fifty times in the last decade, having attracted little attention except as a purely theoretical measure, for the richness and irregularity of the vascular supply of the thyroid make the task practically hopeless. An operation which was destined to receive quite a different degree of attention now came to the front. The operation of enucleation, which had occasionally been practiced by some surgeons in the case of the cystic variety since its recognition by the Italian surgeon, Porta, in 1840, was now established by Socin as a typical method even in treating the solid forms of goitre. The method received immediate acceptance, and constitutes to-day one of the most notable developments of modern thyroid surgery. Instead of stopping short on the surface of the gland for fear of wounding its veins, in Socin's method the parenchyma of the gland is deliberately divided till the cyst lies exposed, and this is then shelled out by blunt dissection, entailing no loss of normal glandular tissue. The essential principle of the operation lies in accurately locating the capsule of the cyst and keeping absolutely close to it without encroaching on the surrounding glandular tissue and its numerous delicate blood-vessels,—a procedure requiring the greatest patience and technical skill. Very often, however, the enucleation is quickly performed, accompanied by little bleeding, without nerve-lesion, and the wound healing undisturbed. The operator must have a clear perception of the limitation of the operation of enucleation. It is undoubtedly the normal procedure in the less vascular cystic variety as well as in the solid forms where the nodules are loosely attached and the capsule clearly defined; and, likewise, it is absolutely indicated in goitre involving both sides of the gland where the preservation of gland-tissue on one or both sides is absolutely indicated. The operation must not be undertaken when impossible to recognize a definite demarcation between the normal gland-tissue and the diseased nodules, or where extensive adhesions are present. Here the procedure is attended with a profuse or uncontrollable hæmorrhage. The character of the operation is terrifying, and not infrequently cannot be carried out to a finish.

We possess in resection of the thyroid a procedure which replaces enucleation where the latter is contra-indicated. It has the advantage over enucleation of efficient hæmostasis, and over extirpation in the preservation of normal glandular tissue. Its chief advantage lies in the possibility of varying the method of operating. Sometimes the hilus or the isthmus can be left, or else the lower portion. It can also be combined to great advantage with enucleation. Mikulicz was the first to perform resection of the entire one-half of goitre as a typical operation.

As regards the results of the modern operations, it can be briefly stated that to-day operations for non-malignant forms of goitre are practically without danger, provided interference is resorted to before the advent of serious pulmonary and cardiac complications attending long-

continued changes in the gland. It must be acknowledged, however, as regards the ultimate results, that the partial operations have been attended with a considerable proportion of unfavorable results, owing to the frequency with which both diseased and normal glandular tissue is preserved. The recent investigations leave no doubt that the number of recurrences after operations for goitre considerably exceeds our expectations.

It is noteworthy, however, that, notwithstanding the numerous recurrences, secondary operations are but seldom called for. The statistics of eight hundred operations furnished by the cases of Socin, Kroenlein, Kappeler, and the author have in scarcely a dozen cases required operation for recurrences. We are justified in considering operation for the relief of goitre as one of the most useful surgical methods at our disposal, as it brings about an immediate disappearance of the most terrifying asphyxia, and is attended with a result so radical as usually to hold good for the entire existence of the individual.—*Annals of Surgery*, April, 1897.

The Serum Diagnosis of Enteric Fever.—JEMMA, of Maragliano's clinic (*Centralbl. f. inn. Med.*, January 23, 1897), has investigated 12 cases of enteric fever and 15 of other diseases. He obtained the blood by means of a sterilized syringe from a superficial vein at the bend of the elbow. One part of serum was added to 10 to 15 parts of typhoid bouillon culture. A positive result was always obtained in the cases of enteric fever, and a negative one in the others. In 6 out of 9 cases investigated at the height of the disease the typhoid bacillus was also demonstrated in the stools and in the splenic blood. The phenomenon was present in a characteristic manner during the febrile acme. The author has previously shown that the bactericidal action of the serum is most marked at the height of the disease and when the temperature is most raised. Less serum is required to obtain Widal's reaction at this phase of the disease. The phenomenon has been shown not to be due to the serum-albumin, but to fibrinogen and serum-globulin. Devoto separated out the globulin and dried it. He found that it was not to be distinguished chemically from globulin obtained from the blood of other people. If dried at 55° C. (131° F.) it lost its bacillus-precipitating properties, but if dried at room temperature it preserved them from eight to ten days; it was free from any globulicidal action. The exudation from blisters, the urine, the milk of female typhoid patients, tears, and exudations in general show the same bacillus-precipitating action. It has been disputed whether this action belongs to the infection or to the immunization. The author has made experiments to ascertain whether heat has the same effect on this precipitation as upon the bactericidal action. A temperature of 37° C. (98.8° F.) for 24, 48, or 96 hours has no effect on the reaction, nor yet has a temperature of 40° (104° F.) for 18, 36, or 50 hours. A temperature of 55° (131° F.) for 40 minutes or 60° (140° F.) for 20 minutes not only delays the development of the reaction, but more serum is required. A temperature of 70° (158° F.) for 10 minutes destroys completely the bacillus-precipitating powers of the serum. At ordinary temperatures of 12° to 15° C. (53.6° to 59° F.) these prop-

erties are preserved in a marked degree for 40 days.—*British Medical Journal*, March 20, 1897.

Lineæ Albicantes. — Osler reports two cases of this disorder,—*i.e.*, atrophic lines on the skin,—and reviews its differential diagnosis. A young girl, aged 17, stout and comely, was brought to him by her father from a neighboring city, much distressed at the appearance of certain spots upon the knees and thighs and arms, particularly on the latter, as she was approaching the "low-neck and short-sleeved" phase of existence. She had had scarlet fever badly about four years ago, and these marks had been noticed for the first time during convalescence. They had increased within the past two years, and were a source of much annoyance. They were chiefly about the knees and outer surface of the thighs, where they formed bluish bands unusually distinct, one or two centimetres in length and five to one centimetres in width, narrowing, as is usual, at the ends. There were three or four about the extensor surface of each elbow; two of these were large and attracted attention at once. She insisted that changes took place in them when she was "out of sorts"; they get red and feel itchy, and in cold weather they had a bluish tint.

The other case was a young married man, in the stout stage, a well-nourished Hebrew, who had been badly scared by the appearance of ugly looking scars on the skin of the lower abdomen. On either side in the iliac regions the skin presented three or four pinkish-blue lines of atrophy. They felt like fissures in the skin, and the cuticle could be picked up readily. They had appeared since his marriage three months ago, and had been a source of much uneasiness to himself and to his wife.

The author also describes a remarkable instance of the development of the disease following a very rapid increase in weight during three months from 145 to nearly 190 pounds. They were similar in position to those in the above case, forming curvilinear bands, extending on either side from near the costal border to the iliac fossæ. The longest one of these was ten inches, and nearly three-fourths of an inch in breadth at its widest part. They were reddish blue in color, and over them, in certain lights, the whitish smooth cuticle glimmered.

There appear to be three different groups of these curious lineæ:—

1. Those due to distension, as from pregnancy, lineæ gravidarum, and which develop in dropsy and in consequence of rapid increase in subcutaneous fat.

2. Post-febrile atrophy, met with particularly after typhoid fever and also after scarlet fever, as in the case just mentioned. He had seen a number of instances after typhoid fever; the lineæ are usually about the outer aspect of the thighs and upon the shoulders. He alluded to an extraordinary instance, in 1895, at the seaside. The lower part of the back was scored in deep transverse lines, one above the other, white and scar-like, but separated by narrow lines of healthy-looking skin. The possessor of them told him that they had developed four or five years before, after a protracted attack of typhoid fever.

3. The idiopathic form, seen in both men and women, about the knees, outer aspects of the thighs, abdomen, elbows, and over the shoulders. This variety, quite as common in men as in women, has rarely the extent of the mechanical form.

In none is the condition of any moment, except in the first case—the young lady—the lineæ being a cause of disfigurement.—*The Montreal Medical Journal*, April, 1897.

The Chemistry and Pathology of Gout.—Arthur P. Luff took this subject for the Goulstonian Lectures, delivered before the Royal College of Physicians of London. The main points and conclusions arrived at are as follow: 1. Uric acid is not normally present in the blood of man and other mammals, nor in the blood of birds. 2. Uric acid is normally produced only in the kidneys. 3. Uric acid is normally formed from urea, probably by conjugation of that substance with glycocin in the kidneys. 4. Uric acid is present in the blood in gout as the soluble sodium quadriurate. In its soluble form it is not a toxic agent. It deposits from the blood as sodium biurate, which acts passively and physically as a foreign body in the tissues or organs in which it is deposited. 5. The presence of uric acid in the blood in gout is due to its deficient excretion by the kidneys, and to the subsequent absorption of the non-excreted portion into the blood from those organs. 6. Gout is probably always preceded by some affection of the kidneys, functional or organic, which interferes with the proper excretion of uric acid. The probable seat of the kidney affection giving rise to gout is in the epithelium of the convoluted tubes. 7. In certain blood diseases and disorders accompanied by leucocytosis uric acid is formed within the system from nuclein. Under such circumstances it passes at once into the blood and is rapidly eliminated by the kidneys. 8. The solubility of uric acid in the blood is not affected by a diminished alkalinity of the blood produced by the addition of organic acids. 9. The deposition of sodium biurate is not accelerated by a diminution of the alkalinity of the blood. 10. An increased alkalinity of the blood does not increase the solubility of deposits of sodium biurate. 11. The saline constituents of vegetables exercise a remarkable inhibitory power over the decomposition of sodium quadriurate. 12. The solubility of sodium biurate in the blood is increased by the presence of the saline constituents of vegetables. 13. The solubility of sodium biurate in the blood is diminished by the presence of the saline constituents of meat. 14. The gout-inducing properties of certain wines are not due to their acidity. Probably they owe their gout-inducing action to the effect they exercise on the metabolism of the liver.—*The Lancet*, April 17, 1897.

Treatment of Fracture of the Clavicle by Massage.—Dragon gives results of massage applied to twenty cases of fracture of the clavicle, under the care of Lucas-Championnière. The author considers the ordinary treatment of this lesion by bandages and slings as very unsatisfactory, owing to difficulty in keeping the fragments at rest and in good position, while the functions of the shoulder and elbow are liable to become im-

paired for some time in consequence of prolonged immobility. The author practices a daily massage not only at the seat of fracture, but also of the adjacent joints and muscles, and insists particularly on massage of the deltoid muscles, and careful movements, both active and passive, of the shoulder. In the intervals the upper limb is supported by a sling. Consolidation of a fractured clavicle is usually effected between the eighteenth and twenty-fifth days from the date of injury, and at the end of this period the patient, when treated in the manner described by the author, is able to use the limb freely, as the main object of such treatment is to prevent articular rigidity, and to preserve the full muscular functions.—Reprint from the *Journal de Médecine et de Chirurgie Pratique.*

Treatment of Pruritus Vulvæ.—P. Ruge reviews in an interesting manner the methods of treatment of this rebellious disorder. As it frequently is the local expression of a general process, such as diabetes, rheumatism, albuminuria, tuberculosis, neurasthenia, etc., local treatment often fails, and relief can be only obtained by treating the underlying general condition. Again, as it may be caused directly by some local pathological condition of the genitals, such as herpes, vaginitis, metritis, cancer of the uterus, etc., a careful local examination should reveal the cause of trouble and indicate the proper line of treatment. Some obstetricians describe an *essential* or *idiopathic* pruritus without apparent local causation, which they refer to central causes. Sänger does not admit the evidence of essential pruritus, but affirms the invariable existence of some primary disease of the vulva, which secondarily affects the nerve-endings. He, therefore, holds that in most cases direct external treatment will effect a cure, although in some obstinate cases resection of certain portions may be necessary. Ruge expresses the opinion that the essential part of the local treatment is thorough disinfection of both vulva and vagina. It should be done as carefully as if a vaginal operation were to be performed. Ruge washes, soaps, and then disinfects with sublimate solution the vulva, vagina, and cervix till all pathogenic micro-organisms have been removed; he then applies to the vulva an ointment of carbolated vaselin (3 to 4 per cent.). The obstetrician should carry out this local treatment himself, using his fingers, but not brushes or instruments, which might cause fresh lesions. Ruge says that the positive and immediate results are in most cases surprising. In severe as well as in mild cases, even when complicated with deep and extensive ulceration, cure is rapid. For some years he has treated systematically in this manner all cases of pruritus, whether leucorrhœa was present or not, with surprising results. Ruge's paper was read before the Obstetrical Society of Berlin, and in the discussion which followed, Martin, Flaischlen, Brose, Bodenstein, and others corroborated his statements and for the most part coincided with his views.—*Zeitschrift für Geburtshülfe und Gynakologie*, Band. xxxiv, S. 355.

The Causation of Chloroform Syncope.—Leonard Hill combats the doctrine of the Hyderabad Commission and of Lawrie that chloroform kills by paralyzing the respiratory center, and reaches the following conclusions:—

1. Chloroform produces a primary failure of the circulating mechanism and a secondary failure of the respiratory center. The respiratory center fails to act not only because it is damaged by the drug, but because of the anæmia of the spinal bulb produced by the fall of arterial tension. This is proved by the fact that the action of the respiratory center can be renewed by raising the arterial tension. The depth of anæsthesia depends, as does the paralysis of the respiratory center, on the primary fall of the arterial tension.

2. Chloroform, more than any other known agent, rapidly abolishes the vascular mechanisms which compensate for the hydrostatic effect of gravity.

3. Chloroform abolishes these mechanisms by paralyzing the splanchnic vasomotor tone and by weakening the action of the respiratory pump. When these mechanisms are totally abolished the circulation is impossible if the subject be in the feet-down position.

4. Chloroform also produces paralytic dilatation of the heart. It acts directly, like amyl-nitrite, on the musculature of the whole vascular system.

5. There are two forms of chloroform syncope: (*a*) During primary anæsthetization. The patient struggles, holds his breath, raises the intrathoracic pressure, congests his venous system, lowers his arterial tension, and, finally, takes deep inspirations and surcharges his lungs with chloroform. In the first stage the left heart becomes impoverished; in the second stage it is suddenly filled with blood. This is drawn from the lungs and is full of chloroform. The chloroform passes into the coronary arteries and the heart is thrown into paralytic dilatation. Respiration and the pulse either cease simultaneously or the pulse before respiration. (*b*) During prolonged anæsthetization this arises from gradually giving chloroform to too great an extent. The arterial pressure falls lower and lower, and, secondarily, the respiration ceases because of the anæmia of the spinal bulb. The heart is not, in this case, paralyzed by chloroform, because the drug is taken in gradually by the shallow respirations and distributed slowly by the feeble circulation.

6. Artificial respiration and the assumption of the horizontal position, if applied in time, will always resuscitate a patient from the second form of syncope.

7. Artificial respiration, established with the patient in the horizontal posture, is also the treatment indicated in the first form of syncope; the heart should be rhythmically compressed by squeezing the thorax. If this does not quickly renew the pulse the patient should be put into the vertical feet-down posture. The dilated right heart is thereby completely and easily emptied of blood. Artificial respiration is maintained during this manœuvre and the patient is brought once more into the horizontal posture. By rhythmic compression of the chest an efficient circulation is maintained through the coronary arteries; by first emptying, and then filling, the heart a fresh supply of blood is brought into that organ. If this does not prove successful on the first trial it can be repeated.

8. Inversion—that is, placing the subject in the feet-up position—or compression of the abdomen will increase the paralytic dilatation of the heart. In this kind of syncope both these forms of treatment are worse than useless.

9. In the condition of shock or emotional fear the compensatory mechanism for the effect of gravity is almost abolished and chloroform may easily be the last straw to completely paralyze the circulation.

10. Vagus inhibition of the heart is of no importance as an agent in the production of chloroform syncope.

11. Ether is, in every respect, a far-safer anæsthetic than chloroform. According to Ringer's experiments on the heart, ether is fifty times less dangerous than chloroform.

12. With the practical conclusion of the Hyderabad Commission, that the chloroform-inhaler should be removed during the struggling of the patient or when the respiration is of irregular depth, he absolutely agrees, but he considers their interpretation of their own experiments and tracings concerning the origin of chloroform syncope to be mistaken.

Not only the work of all physiologists, but also the tracings of the commission, when rightly interpreted, prove that paralysis of the circulatory mechanism, and not of the respiratory center, is to be dreaded by the anæsthetist.—*British Medical Journal*, April 17, 1897.

Cirrhosis of the Liver.—T. N. KELYNACK reports the results of an analysis of 121 cases seen in the Manchester Royal Infirmary. Of the 121 cases 60 appeared to be fatal directly from the effects of the hepatic cirrhosis. No less than 15 seemed to have died directly from tuberculosis; 12 had tubercular peritonitis. Acute lobar pneumonia occurred in 5. A number of deaths were due to cardiac involvement. Several died from hæmatemesis, epistaxis, and cerebral hæmorrhage. In 1 case the author found the stomach distended with blood, although none had been ejected from the mouth. Rupture of aneurism occurred in 2. Malignant disease was present in 1 case. Hæmorrhagic nephritis was also marked in 1. Diabetes mellitus occurred in 1 case. Secondary pneumonia was present in several. He also met with malignant endocarditis in association with marked hepatic cirrhosis.

As to sex, of the 121 cases 82 were males and 39 females. The relation of males to females is thus seen to be about 2 to 1. As the accommodation of the hospital for medical female cases is somewhat less than that for males, these numbers are of but limited value as indicating the true proportion between the sexes.

The actual age was ascertained in 108 of the cases,—73 males and 35 females. The remainder were all adults.

Result of analysis:—

Age.	Male.	Female.
Oldest, ...	68 years.	65 years.
Youngest, ...	19 "	19 "
Average, ...	45.5 "	42 "

An analysis of the 121 cases appears to warrant the author in arriving at the following conclusions:—

1. Common cirrhosis cannot conveniently be divided into alcoholic and non-alcoholic varieties. Most examples met with in hospitals occur in alcoholic subjects.

2. Nearly 50 per cent. of the cases die directly from the effect of the hepatic cirrhosis.

3. Over 12 per cent. die from active tuberculosis. Tubercle of the peritoneum occurs in a little over 9 per cent. Either active, latent, or obsolete tubercle is met with in nearly 24 per cent. of all cases.

4. Cirrhosis appears commonest in males, the proportion being about 2 to 1.

5. The average age at death is: for males, 45½; and females, 42; that is to say, cirrhosis is fatal to women earlier than to men by three and one-half years.

6. Ascites occurs in 56 per cent. of all cases. It is usually less extensive in females than males.

7. Ascites constantly occurs in association with hæmatemesis, and they are not to be considered as mutually exclusive.

8. The weight of the liver averages, in males, a little over 53 ounces; in females, nearly 54 ounces.

9. The liver is increased in size in nearly 33 per cent. of all cases, diminished in about 61½ per cent., and normal in size in only about 5½ per cent.

10. The liver varies in size between its ante- and post-mortem conditions.

11. Typical "hobnailed" livers are not common at the present day, although evidence of alcoholism is constantly being met with.

12. The spleen in hepatic cirrhosis weighs on the average in males 14¼ ounces, in females a little over 11½ ounces.

13. The spleen is enlarged in 83 per cent., normal in size in nearly 9½ per cent., and diminished in 7¾ per cent.

14. The "cyanotic" spleen of hepatic cirrhosis is larger and heavier than that met with in "cardiac" cases.

15. Renal "cirrhosis" only occurs in association with hepatic cirrhosis in a little over 18½ per cent. of all cases.—Reprint from *Birmingham Medical Review.*

Bacteriology of the Nasal Mucus.—Vansant, of Philadelphia, gives a brief report of the results of a bacteriological investigation of the nasal mucus in 100 cases of chronic nasal discharge. Of the 100 cases examined the Klebs-Lœffler bacillus was found in 26, 11 of which had atrophic rhinitis, 3 purulent rhinitis, 5 in simple rhinitis, 3 in nasal syphilis, and 3 in hypertrophic rhinitis. In fifty-eight cultures staphylococci were found. No cases were examined which showed any symptoms of diphtheria. His conclusions are that in a large percentage of chronic nasal catarrh the secretions are infected with diphtheria bacilli, staphylococci, etc.—*Journal of the American Medical Association*, February 27, 1897.

Intubation as a Substitute for Tracheotomy in Acute Laryngeal Stenosis in Children.—In this paper (*Intercolonial Medical Journal of Australasia*, December 20, 1896), reviewed by Lake, A. J. TURNER compares the results obtained during three years in which tracheotomy was practiced almost exclusively, and three years in which it had given way to intubation, the cases occurring in the Brisbane Children's Hospital:—

YEAR.	PRIMARY TRACHEOTOMIES.			INTUBATIONS.			SECONDARY TRACHEOTOMIES.			TOTAL OPERATIONS.			
	Operations.	Recoveries.	Deaths.	Operations.	Recoveries.	Deaths.	Operations.	Recoveries.	Deaths.	Operations.	Recoveries.	Deaths.	Mortality Percentage.
1889–'90	23	6	17	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1890–'91	21	8	13	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1891–'92	24	7	17	6	2	4	. .	. .	. .	74	23	51	68 9
1892–'93	. .	. .	. .	31	14	17	6	2	4	. .	. .	. .	. .
1893–'94	. .	. .	. .	53	21	32	. .	. .	. .	. .	. .	. .	. .
1894 (6 months) . .	1	. .	1	11	6	5	. .	. .	. .	96	41	55	57.3
	69	21	48	101	43	58	6	2	4	. .	. .	. .	. .
ANTITOXIN PERIOD: 1895–'96	2	1	1	40	27	13	2	. .	2	42	28	14	33.3

The following arguments are advanced in favor of intubation: The procedure is rapid, there is no loss of blood, no anæsthesia, depression, nor increased dyspnœa, and no risk of cellulitis, as there is no open wound, and the cannula is not apt to become plugged with dry mucus, and so can be left for days undisturbed; the tube is easier removed, and there is no scar. Feeding really presents no difficulties which are not easily surmounted. Six days is given as the best period for retention of the tube. The string should always be attached to the tube and precautions taken to prevent its being pulled out by the patient. Cases are given.—*Journal of Laryngology*, April, 1897.

Idiopathic Osteopsathyrosis (Fragilitas Ossium) in Infancy and Childhood.—J. P. CROZER GRIFFITH, of Philadelphia, gives the details of a case of idiopathic osteopsathyrosis occurring in a child, aged 2 years and 10 months, and reviews similar cases which he had been enabled to collect from the literature. The patient, without hereditary predisposition, and born after an apparently normal labor, exhibited nothing unusual until the second day after his birth, when both femora were found fractured. Union was complete in three weeks. At the age of 3 months the right humerus and right femur were broken. At the age of 7½ months he fractured his right femur. Seven months later he again broke his left thigh. Union took place, but two weeks after the dressings had been removed the bone was fractured again. From time to time other fractures of his thighs, forearms, and ribs occurred. It is estimated that in all he has seventeen or eighteen fractures. His general health and nutrition were good. There were few, if any, evidences of possible rickets.

Osteopsathyrosis may be symptomatic of other affections, or it may be idiopathic,—that is, not associated with any discoverable cause. The symptomatic form depends upon various conditions, such as rickets, syphilis, atrophy of the bone, osteomyelitis, malignant new growths, cysts, localized necrosis, etc. The influence of heredity is very marked in the idiopathic form. There is a tendency to a transmission not only through males, but to males, and a further tendency for the affection to begin in early life. The force necessary to produce the fracture is nearly always slight and sometimes remarkably so. The influence of other diseases is problematical. The pathology of the affection is imperfectly understood. An interesting feature is that union of the broken bones is remarkably prompt. The symptoms consist, of course, in the occurrence of numerous fractures from insignificant causes. In the diagnosis we must first determine the absence of other conditions to which fragility may be secondary. The prognosis is very unfavorable. The treatment, as both the cause and nature are but little known, is largely experimental. It consists in the administration of alteratives of various sorts, the maintenance of good general health, and the protection of the limbs against fracture in the expectation that the fragility may be outgrown.—*American Journal of the Medical Sciences*, April, 1897.

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NOTES AND COMMENTS.

Resinol.—I am well pleased with Resinol as an antipruritic, having tested its merits in an obstinate case of Pruritus Ani and also a case of Eczema of penis and scrotum. In both cases Resinol gave more prompt relief that any remedy heretofore used.—J. S. Dodge, M.D , Pittsburgh, Pa.

A Hint for Carriage-buyers.—The Elkhardt Carriage and Harness Manufacturing Co., Elkhardt, Ind., are selling all kinds of road-vehicles and harness direct to purchasers all over the country at factory-prices. Their catalogue, which gives all particulars, is mailed free.

Note on the Treatment of Anæmias.—William Krauss, M.D., of Memphis, Tenn., Pat ologist to St. Joseph's Hospital, writes as follows in the *Memphis Medical Monthly:* The evolution of organic iron compounds has been interesting both from pharmaceutical and clinical stand-points. The scale salts were the first to attract attention, and their superiority over the inorganic preparations soon became manifest. The hydrated succinate then came into favor, and later the "albuminates" were introduced,—indefinite mixtures, whose solutions readily coagulated, even spontaneously. In Gude's peptonate of iron and manganese we have a stable and palatable preparation, uniform in composition and therapeutic in effect. Theoretically it would seem that iron could only be of service

THE

Universal Medical Journal.

A MONTHLY MAGAZINE
OF THE PROGRESS OF EVERY BRANCH OF MEDICINE
IN ALL PARTS OF THE WORLD.

(Companion Publication to the "Annual of the Universal Medical Sciences.")

Vol. XI. Old Series. PHILADELPHIA, JUNE, 1897. Vol. V. New Series.

Selections from Society Proceedings.

UNITED STATES.

AMERICAN GYNÆCOLOGICAL SOCIETY.

When to Amputate in Preference to the Usual Operation for Lacerations of the Cervix Uteri.—DR. THOMAS ADDIS EMMET, of New York, laid stress upon the fact that the operation as described in his paper is not intended to take the place of trachelorrhaphy, but is to be employed in those cases in which, by reason of the impaired condition of the tissues, depth and extent of the laceration, or excessive scar-tissue in the angle thereof, it is impossible to repair the cervix by the usual method. The operation described consisted of making an excavation in the cervix with curved scissors, removing all unhealthy tissue, and uniting the remaining flaps to the lining of the uterine canal with silver sutures. Strict antiseptic precautions should be observed and care taken to secure patency of the uterine canal.

DR. PAUL F. MUNDÉ, of New York, agreed with the author that it is often impossible to get good results without removing some of the cervical tissue. In cases of elongated cervices he amputates the cervix with a knife and, if the uterus be hypertrophied and prolapsed, narrows the vagina and performs Alexander's operation.

DR. J. RIDDLE GOFFE, of New York, took exception to the term "amputation of the cervix," because it might give rise to the impression that the operation is done with the écraseur. He thought that, in nearly all cases, a good result would follow the Emmet operation for repair of the cervix, and

was of the opinion that removal of the cervix destroys the equilibrium of the uterus.

Dr. A. Palmer Dudley, of New York, was in favor of amputation of the cervix, because in many cases no other operation is applicable.

Dr. Bache McE. Emmet, of New York, considered the operation a good one in such cases as could not be treated by trachelorrhaphy.

Dr. E. C. Dudley, of Chicago, said he had employed a modification of the Schroeder operation in many cases where the scar-tissue in the angle of the wound was inaccessible.

Dr. Thomas Addis Emmet, in closing, said the Schroeder operation is identical with the one advocated in the paper, which the speaker has performed since 1866. It was devised by Dr. Sims, but was not successfully performed by him on account of oozing of blood through the flaps and the formation of abscess.

Result of Two Hundred Operations for the Cure of Retrodisplacements of the Uterus.—Dr. A. Lapthorn Smith, of Montreal, said that ventral fixation, which is considered unjustifiable by many surgeons on account of the dangers attending it,—notably obstruction of the bowel,—is indicated in those cases where retrodisplacement of the uterus is complicated by adhesions. Alexander's operation should be employed in all cases where there are no adhesions, but a simple falling back of the uterus and appendages. The operation is contra-indicated when the uterus, after having been brought up to the symphysis pubis, immediately springs back to its former position. The author described a method by which the operation can be performed in a minute or a minute and a half, and said there is no difficulty in finding the round ligaments if this method be employed. The operation is without primary mortality and has none of the disadvantages of ventral fixation.

Intra-abdominal Shortening of the Round Ligaments for Posterior Displacements of the Uterus.—Dr. M. R. Mann, of Buffalo, gave a report of fifty-eight cases treated by a new method, consisting of shortening the round ligaments by doubling them on themselves in three equal lengths and stitching them together, after making a median abdominal incision.

A Preliminary Report on a New Method of Vaginal Fixation.—Dr. Edward Reynolds, of Boston, after describing the forces which determine the normal position of the uterus and showing, by means of drawings, how a faulty attachment, anteriorly or posteriorly, would throw the uterus backward or forward, described an operation designed to correct a too-low anterior attachment. An anterior vaginal incision, similar to that made in hysterectomy, is made, and the bladder separated up to the level of the internal os; the uterus is then put into position and the point at which the bladder separates from the anterior wall is determined by a sound introduced into the bladder; a silver-wire suture in a silk carrier is introduced in the vaginal wall at a point in front of the separation from the bladder, passing obliquely through the tissues and emerging on the cut surface below the junction of the vaginal wall with the bladder, and then

drawn through the cervix at the level of the internal os and brought out through the anterior vaginal wall at a similar point on the opposite side. A second suture is placed as near the first as is convenient, care being taken that the uterus is still well forward. The sutures are then twisted and turned down. As the stitches will be exposed to considerable traction, coarse wire should be used. The cut edges of the mucous membrane are then stitched together with fine catgut in such a way as not to increase the tension on the deep sutures.

Shortening the Round Ligaments Through the Anterior Vaginal Fornix for Posterior Displacements of the Uterus.—Dr. J. Riddle Goffe, of New York, has employed the method in eight cases with good results, and gave the following description of the technique of the operation: After the uterus is drawn well down to the vaginal outlet, a cross-section is made at the utero-vaginal junction and the vaginal tissues dissected off the bladder down to the peritoneal reflection; the central point of this incision is then caught up and the anterior vaginal wall drawn taut; a longitudinal incision is made down to the neck of the bladder, and the tissues from the urethra to the cross-section are separated by blunt dissection for half an inch on both sides; the peritoneum is then opened, and the finger passed in and hooked over the fundus of the uterus, and the latter brought into the vagina. Any adhesions which may exist are now broken up, and the appendages inspected and removed if necessary. The round ligament of first one side and then the other is picked up with the fingers, the sheath opened with an aneurism-needle, the ligament drawn up two or two and a half inches, doubled upon itself, and stitched with two or three fine sutures; the uterus is then replaced, a little gauze is introduced between it and the bladder, and the longitudinal incision closed with a running catgut suture.

Dr. Paul F. Mundé, of New York, was much gratified to see how generally Alexander's operation has been accepted, because he was the first to perform it in this country. The operation is indicated, and results in a permanent cure, in all cases where the retrodisplaced uterus is movable and the appendages not diseased.

Dr. Beverly McMonagle, of San Francisco, referred to the frequent occurrence of suppuration following Alexander's operation, and is in favor of opening the abdomen in these cases and suspending the uterus after Kelley's method. He is opposed to ventral fixation on the ground that it interferes with pregnancy, and said that patients upon whom vaginal fixation has been performed often complain of numbness and pain in the vagina.

Dr. A. Palmer Dudley, of New York, had recently lost a patient from obstruction of the bowel following ventral fixation and would never perform the operation again. He also referred to the pain caused by the uterus rising in the pelvis when pregnancy occurred after the operation. He is in favor of Alexander's operation in cases where a diagnosis of perfect appendages can be made.

Dr. Charles P. Noble, of Philadelphia, cited the case of a woman who had died in labor as a result of ventral fixation, and is opposed to the

operation in child-bearing women because it so often interferes with pregnancy. Suspension of the uterus is without this disadvantage, and is to be preferred. He has employed Alexander's operation in suitable cases and with fairly good results. If the wound is closed by the Bassini method, there is but little danger of hernia.

Dr. H. J. Garrigues, of New York, had performed Alexander's operation, combined with removal of the appendages, in several cases with good results, but does not think the operation is of any value if the uterus is hypertrophied and prolapsed. Amputation of the cervix is indicated in such cases to induce involution of the organ and reduce its weight.

Pelvic Blood-collections and their Treatment by Vaginal Incision.—Dr. E. E. Montgomery, of Philadelphia, states that intraperitoneal and extraperitoneal hæmorrhage, although due to many causes, most frequently occurred as a result of rupture of an ectopic pregnancy, and often is so rapid as to cause speedy death. Hæmatocele from other causes often remains encysted for a long time without giving trouble, or may become absorbed. In cases where hæmorrhage is recent and is believed to have ceased, no attempt at evacuation should be made when the case is first seen, for fear of dislodging a clot and causing a recurrence of the bleeding. In all other cases the blood-collection should be evacuated by vaginal incision, and the cavity irrigated with normal salt solution and packed with sterile gauze.

Dr. Harris mentioned two cases of hæmatocele which had come under his observation. In the first instance hæmorrhage had resulted from torsion of the pedicle of an ovarian cyst. The second case was a woman who had recently been confined. The labor was normal, but soon after an abscess appeared in the vagina which discharged spontaneously. A tumor remained, which the speaker incised, evacuating a large quantity of pure blood.

Dr. Bache McE. Emmet, of New York, agreed with the author that vaginal incision and evacuation is the proper treatment in cases of pelvic blood-collections, and advised exploration of the pelvic cavity to determine, if possible, the source of the hæmorrhage.

Sociological Aspects of Gonorrhœa.—Dr. E. W. Cushing, of Boston, dwelt upon the importance of the remote effects of gonorrhœa on the human race, and said it was the duty of the physician to endeavor to check the spread of the disease by instructing his patients in regard to its frightful consequences. Legal recognition of the social evil has had but little effect in those countries where it is practiced, and the author did not think the remedy lay in this direction.

Dr. H. J. Garrigues, of New York, spoke of the importance of protecting the future wife and children by teaching men to avoid the disease. If they will not be chaste, they should at least take precautions against contracting the disease. The speaker was in favor of regulation of the social evil by law, and in this way restricting it.

Professor Hutchinson, of Buffalo, had made a study of the subject, and his views were the same as those of the author. He laid stress on the

sterility which follows gonorrhœa in men as well as in women. He agreed with the author that legal enactment would have no effect in controlling the spread of the disease.

Dr. Ashton, of Philadelphia, pointed out the fact that the disease is generally spread by secret prostitutes, and it is impossible to reach these by legislation. He was also of the opinion that legal recognition of the social evil is demoralizing to a community and lowers its tone. The physician should tell men the terrible results of the disease and appeal to their self-interest in order to make them avoid it.

Dr. A. Palmer Dudley, of New York, said that the remote effects of gonorrhœa cannot be overestimated, and that a diagnosis of the disease can always be made from the pathognomonic signs given. The disease should be treated by heroic measures. He also referred to the value of microscopical examination of discharges and pus, and said he had recently removed a quantity of pus from the pelvis of a young woman which was found to contain gonococci. The husband confessed to having had several attacks of gonorrhœa.—*Boston Medical and Surgical Journal*, June 10, 1897.

The American Pediatric Society.

Report on the Collective Investigation of the Antitoxin Treatment of Laryngeal Diphtheria in Private Practice, 1896-1897.—In the second and supplementary investigation the aim has been to ascertain: 1. What percentage of cases of laryngeal diphtheria recover, without operation, under antitoxin treatment? 2. What percentage of operated cases recover? The report now submitted may properly be limited to answering these two inquiries.

Since the beginning of the general use of intubation no disease has been more thoroughly observed and more fully reported than laryngeal diphtheria. Operative cases, especially, without hesitation, whether ending fatally or favorably, have been fully and promptly put on record. The result has been a collection and tabulation of cases available for control, such as few diseases offer. There are thousands of intubation cases before the days of antitoxin, and thousands since, available for comparison. It is, then, in cases of laryngeal diphtheria, especially those requiring operative interference, that we may apply the crucial test of the value of the antitoxin treatment.

Circulars were distributed throughout the United States and Canada, the following means being employed: Contributors to first reports, members of the society acting as agents for their respective localities, boards of health, local medical societies, and antitoxin manufacturers.

In order to reduce sources of error it was desirable to bring together a large number of cases, from widely-distributed localities, from many different observers and operators, and from a period of time including all

seasons of the year. All returns have been examined by the committee, and only such cases accepted as bore satisfactory evidence that they were, first of all, diphtheria, and, secondly, that the lesion had invaded the larynx.

A total of 1704 cases of laryngeal diphtheria serve for present study. A few cases (228) had not satisfactory evidence that there was laryngeal involvement; indeed, some were reported through misunderstanding the fact that only laryngeal cases were wanted, and a few were reported in which there was no mention that antitoxin was used. These cases are, of course, not included in the number referred to above; 218 of them ended in recovery and only 10 were fatal.

In a total of 1704 antitoxin-treated cases of laryngeal diphtheria there was a mortality of 21.12 per cent. (360 deaths).

TABLE OF ALL CASES, SHOWING AGE AND RESULT OF TREATMENT.

	Fatal Cases.	Recoveries.	Totals.	Mortality.
1 year and under, .	25	35	60	41.66 per cent.
1 to 2 years, . .	77	219	296	26 01 " "
2 to 3 years, . .	81	260	341	23.75 " "
3 to 4 years, . .	42	216	258	16 27 " "
4 to 5 years, . .	47	160	207	22.70 " "
5 to 10 years, . .	72	345	417	17.26 " "
10 to 15 years, . .	9	64	73	12 32 " "
15 to 20 years, . .	2	24	26	7.65 " "
Over 20 years, . .	5	17	22	22.72 " "
Unknown, . . .	0	4	4	
	360	1344	1704	21.12

Cases Not Operated On.—The first inquiry of the circular was: What percentage of cases of laryngeal diphtheria recover, without operation, under antitoxin treatment?

Of 1704 total cases, 1036 were not operated upon (60.79 per cent.). Of these, most did not require operative interference, a few cases were thought to require it, but operation was refused. All cases are included, and it will be noted there are no eliminations.

Among the 1036 cases not operated on there was a mortality of 17.18 per cent. (178 deaths), or, to answer the inquiry of the circular exactly, of 1036 cases not operated on, 82.82 per cent. recovered (or 858 cases).

As good as is this percentage of recovery in so large a number of cases of diphtheria of the severest type, it is believed it is not as good as it ought to be. Cases of laryngeal diphtheria not requiring operation, according to the testimony of consulting intubationists, are seldom heard from a second time, and less often find their way into reports. It was formerly estimated that about 10 per cent. of cases of laryngeal diphtheria recovered without operation. The present report shows that in 1036 cases 82.82 per cent. recovered.

Cases Operated On.—In analyzing this class of cases it is believed a more exact conclusion as to the value of the antitoxin treatment can be arrived at than in the non-operative.

There will be entire harmony of opinion as to the severity of laryngeal diphtheria which requires operative interference. In the last report the recoveries had crept up so high in the one hundred cases that it seemed more natural to speak of the percentage of mortality.

In this connection it is interesting to inquire what were the most reliable statistics of intubation, taking cases as they occurred, without selection, in pre-antitoxin days. In 5546 intubation cases collected by McNaughton and Maddren, in 1892, the mortality was 69.5 per cent., or, to bring the facts into line, 30.5 per cent. recovered.

O'Dwyer's personal experience in private consultation brings us more nearly face to face with the old-time experience with diphtheria. Note that the following five hundred cases came under the observation and care of one practitioner,—a skilled operator,—extended over a dozen years of time, and, therefore, included all types of the disease.

Exclusive of the first one hundred cases of intubation, which he (O'Dwyer) regards as experimental, the results stand as follow:—

2d, ...	100	intubations,	recoveries,	27 per cent.
3d, ...	100	"	"	30 " "
4th, ...	100	"	"	26 " "
5th, 70 in the . .	100	"	"	27 " "

Total percentage of recoveries, 27.56 per cent. When he had reached 70 in the fifth hundred something occurred which carried the phraseology up over the divide, so that it was appropriate to speak of percentage of mortalities. At this point in history antitoxin arrived, and interrupted forever the old series. In O'Dwyer's next 59 cases the mortality was 14 deaths, or 23.7 per cent.

In a total of 1704 laryngeal cases there were 668 cases operated upon. In the 668 there were 182 deaths, or a mortality of 27.24 per cent. In the former report, in 553 intubated cases the mortality was 25.9 per cent. In approximate figures there is a difference between 27¼ per cent. and 26 per cent.

Summary.—Sixty thousand circulars were distributed throughout the United States and Canada.

Time allowance, the eleven months ending April 1, 1897.

Whole number of cases in this report, 1704; mortality, 21.12 per cent. (360 deaths).

The cases occurred in the practice of 422 physicians in the United States and Canada.

Operations employed:—

(*a*) Intubation in 637 cases; mortality, 26.05 per cent. (166 deaths).

(*b*) Tracheotomy in 20 cases; mortality, 45 per cent. (9 deaths).

(*c*) Intubation and tracheotomy in 11 cases; mortality, 63.63 per cent. (7 deaths).

Number of States represented, twenty-two, the District of Columbia, and Canada.

Non-operated cases, 1036,—60.79 per cent. of all cases; mortality, 17.18 per cent. (178 deaths).

Operated cases, 668, or 39.21 per cent. of all cases; mortality, 27.24 per cent. (182 deaths). Two facts may be recalled in connection with this paragraph: 1. That before the use of antitoxin it was estimated that 90 per cent. of laryngeal-diphtheria cases required operation, whereas now, with the use of antitoxin, 39.21 per cent. require it. 2. That the percentage figures have been reversed, formerly 27 per cent. approximately representing the recoveries, whereas now, under antitoxin treatment, 27 represents the mortality. To put it in other words, before the use of antitoxin, 27 per cent. recovered; now 73 per cent. recover, and this in the severest type of diphtheria.

Although the present report seems to reveal a mortality too large in each of the two classes, it is nevertheless the case. The mortality is large —larger than the personal experience in private practice of many would lead them to expect.

The reasons for this are (1) that antitoxin is still used too late, either from procrastination on the part of the physician or objection on the part of the friends, or (2) in a half-hearted way, which shows itself in doses from one-tenth to one-fourth as large as they should be. In truth, both the physicians and the friends of the patient are timid.

This report, it must be admitted, shows too large a mortality. In the opinion of the committee it is a larger mortality than will ever be shown again. Antitoxin is gradually being used earlier in the disease, and it will soon be used in sufficient doses.

To the society the committee desires to say that it has sought to carry out their wishes in putting antitoxin on trial, to accept no testimony that did not bear the stamp of reliability, that it has employed the methods approved in the case of the first investigation and report, and that it has confined its work to definitely answering the main questions which the society and profession now have in mind. Points that were settled in the first report and have since been corroborated by general medical literature are not again taken up.

If the committee is asked to put forth the three most valuable points established in this eleven months' work, they are:—

1. The mortality of laryngeal diphtheria at present rests at 21.12 per cent.

2. That 60 per cent., approximately, have not required intubation.

3. That the mortality of operated cases is at present 27.24 per cent.

The committee, composed of Drs. W. P. Northrup, Joseph O'Dwyer, L. Emmett Holt, and Samuel S. Adams, recommends that antitoxin be given at the earliest possible moment in all cases of suspected diphtheria.

Quality.—Of the products on the market some have, by test, been found to contain one-half to one-third the antitoxin units stated on the label. Select the most concentrated strength of an absolutely reliable preparation.

Dosage.—All cases of laryngeal diphtheria, the patient being two years of age or over, should receive as follows: First dose: 2000 units at the earliest possible moment. Second dose: 2000 units, twelve to eighteen hours after the first dose, if there is no improvement in symptoms. Third

dose: 2000 units, twenty-four hours after the second dose, if there is still no improvement in symptoms. Patients under two years of age should receive 1000 to 1500 units, the doses to be repeated as above.—*North Carolina Medical Journal*, June 5, 1897.

GREAT BRITAIN.

British Laryngological, Rhinological, and Otological Association.

Indications for and Methods of Operation for Post-nasal Adenoids.—Dr. Greville Macdonald stated, as a first proposition, that the actual quantity of hypertrophy of the naso-pharyngeal lymphoid tissue affords one no indication, alone, of the necessity for operation. There are cases where nose-breathing may be almost an impossibility, and yet no fault can be found with the development or the general nutrition, or more local consequences,—such as ear trouble, cold-taking, sore throats, sneezing, or asthma. On the other hand, in some patients the removal of an absurdly small enlargement of the pharyngeal tonsil may induce extraordinary improvement as regards one or more of the common symptoms. Why this difference should obtain is not very easy to account for, although he is in the habit of explaining it to parents upon a theory of handicapping: one horse may be extravagantly handicapped, and yet win the race, while another will be thrown out of it just because he is obliged to carry a very little more than was consistent with his physique. Similarly, one boy with a little bit of adenoids is deaf, round shouldered, and in a constant state of catarrh,—although, perhaps, with neither buccal respiration nor snoring to help the diagnosis,—while his brother may snore and habitually hold his mouth open, but otherwise be the picture of perfect health. Possibly upon such an hypothesis, also, may be explained the increasing necessity for the operation; for one can scarcely believe that, were the consequences of post-nasal hypertrophy in our grandfathers so serious as they are now, they could have so long escaped recognition and treatment. As a corollary of these remarks, the author formulated this rule: That the necessity for operation depends not upon the growths themselves, or their quantity, but upon the mischief they are doing; and, as an extension of this one, that the mistake apt to be made by the younger and more zealous operators consists in assuming that every case of adenoid growth must be submitted to the surgeon. Were this so, fifty times the number of operations that at present take place in the year would suffice to effect the necessary clearance. And yet, so enthusiastic is he for the operation, that he thinks it would be an inestimable boon were a compulsory examination made of all children in public institutions or elementary schools to ascertain and advise upon this subject.

Whenever there is a constant tendency to cold-taking, or there is chronic laryngitis or bronchitis, and the patient is under thirty, we should not hesitate to operate, and that with a most favorable prognosis, should the obstruction be profound.

Whenever—to come to the nervous symptoms—we have paroxysmal sneezing or hay fever, spasmodic asthma or laryngismus stridulus, headaches, chorea, or epilepsy, we need not scruple to operate, although here, again, our prognosis must be guarded.

Finally, whenever there is distinct flattening of the lower part of the thorax on one or both sides, or depression of the costal cartilages, or prominence of the sternum, we should probably be right in operating, although there may not be much indication of general malnutrition.

He points out the fact that, with a nasal obstruction, the younger the patient, the less pronounced invariably is the tendency to buccal respiration, and that many grave cases of adenoids in children under 4—including, of course, infants—are overlooked because the child always breathes through the nose. The instinct of nose-breathing is sufficiently strong to surmount serious interference with its successful performance, while the habit of buccal respiration is acquired but slowly and, he thinks he may say, with difficulty. And, of course, the more persistently is buccal respiration inforced, where there is nasal obstruction, the greater the mischief induced, whether in the way of thoracic malformation or deficient oxygenation. He therefore argues that the absence of buccal respiration is no indication against an imperative necessity for operation.

As to indications afforded by the age of the patient, so far as actual interference with respiration is concerned, the younger the patient and the more nose-breathing is persisted in, the greater the necessity for operation. On the other hand, he has often thought, from the observation of individual cases, that the very fact that buccal respiration is so thoroughly established removes from the growths their most important menace. The average middle-class mother is now fully alive to the importance of the symptoms of snoring and mouth-breathing; but she exaggerates the mischief wrought by the latter.

It is not the mouth-breathing which is harmful in most cases, but the obstructed nose-breathing. No greater mistake can be made than for a parent to insist upon a child breathing through the nose when he prefers to breathe through the mouth.

An argument commonly used is that when the patient is approaching the age at which we may hope for spontaneous atrophy operation is not called for. In many cases this argument should have very great weight. Provided the symptoms are comparatively insignificant and the patient appears, on the whole, to be improving rather than the reverse, he thinks we may safely leave the case alone, especially if we can watch its progress from time to time. But, on the other hand, he would combat by every argument in his power such a suggestion where there are grave symptoms, —such as deafness, anæmia, asthma, etc.,—and for the reason that, generally speaking, the older the patient, the more guarded we find ourselves compelled to be in our prognosis. Briefly, spontaneous atrophy at the age of 20 will not give us as satisfactory results as operation at 18, just as operation at 16 would probably have been still more satisfactory.

In all cases we have to bear in mind the fact that probably a good

many of our worst cases would, if left alone, have improved enormously, for we cannot but be struck with the fact that it is not infrequent for older patients to assure us that they were frequently or always deaf as children, but that now they hear perfectly. And yet we should bear this in mind: we must remember the grave risk the patient may be incurring by leaving the obstruction alone during those years when he needs all the oxygen he can be given, all the health he can acquire, and when he commands a power of rehabilitation such as he will never subsequently enjoy.

We must remember, also, that it is by no means certain that because we can see or feel some slight enlargement of a pharyngeal tonsil, that it must be considered as necessarily pathological, and that it is impossible to determine where the normal ends and where the morbid begins. The author invariably makes it his aim to impress this point very forcibly upon his students, in order that they may learn to judge each case upon its own merits.

There is one other class of cases worth referring to, which would not be comprised under any of the remarks above made. These are, for the most part, individuals whose singing voices are of consequence, whether professionally or merely for their friends or themselves. Whenever he finds in a singer a small hypertrophy of the pharyngeal tonsil, even when it is of absolutely no pathological importance, he has no hesitation in urging removal; and he thinks he can, without exaggeration, affirm that he has never operated in such a case without the results being remarkable, more especially in the direction of improving the timbre of the head-notes.

As regards the second division of this subject,—of the methods of operation,—the essential point in the successful performance of the operation lies in the operator's belief in his own methods being incomparably superior to those of any other practitioner.

Mr. Lennox Browne agreed with Dr. Macdonald that the actual methods to be adopted, or preference for a particular instrument for removal of these vegetations, must always be largely controlled by the individuality of the operator and by the exigencies of the case. The bold surgeon may find a thorough sweeping with the curette, followed by an equally thorough sweeping with the finger-nail, sufficient; another using the forceps may, perhaps, be equally successful; while a third, whether he use curette, finger-nail, or forceps, or even all three, failing to grasp the nettle firmly, may simply irritate to fresh growth a portion not removed, to be described by him as a recurrence.

The method of operating is of little consequence provided it is thorough and rapid. The more thorough it is, the less the risk of a second operation being ever required, and, the more rapidly it can be performed, the more superficial can we allow the degree of anæsthesia to be maintained. And upon the latter point he believes depends very largely the safety of all such procedures.—*Journal of Laryngology, Rhinology, and Otology*, June, 1897.

Selections from Reports of Members of the Annual's Staff of Correspondents.

Jamaica.

DR. HENRY STRACHAN,
CORRESPONDING EDITOR FOR SURGERY AND GENERAL MEDICINE.

All books, theses, monographs, etc., published in Jamaica should be sent to

DR. HENRY STRACHAN,
Kingston, Jamaica.

Exophthalmos of the Left Eye Due to Cyst in Left Nasal Cavity. Removal of Cyst. Recovery, with Disappearance of the Exophthalmos.—The patient, A. D., was a boy, and was admitted with exophthalmos of the left eyeball. No cardiac or thyroid symptoms present. At first no cause was evident. He was kept in for observation. After a time it was found that the inner wall of the orbit was encroaching on the orbital cavity. This became more marked, and attention was directed to the nasal cavities. No symptoms had appeared or been complained of, but on examination there was found to be some degree of obstruction to the passage of a forcibly expelled or inhaled air-current through the left nostril, and a tumor was found, high up, at the posterior part of the left nasal cavity near the left posterior naris, pressing on the inner orbital wall. This, on removal, proved to be a cyst containing about one ounce of mucoid material. After the operation the proptosis gradually subsided, and in about ten days or a fortnight the condition of the left eye was normal. The boy remained under observation for some time longer and then returned to the country, well.

Rupture of the Globe of the Eye. Operation. Recovery, with Good Vision.—The patient, T. H., was a soda-water bottler. While engaged in his occupation a bottle of soda-water exploded, injuring the right eye. On examination, the globe was found to be ruptured. The tear in the cornea began about two millimetres from outer edge of the cornea, a little below the horizontal meridian, and, extending across the cornea in a direction upward and inward, it continued through sclerotic (in same direction) for about one-fourth inch. The iris protruded through the rent, but very little vitreous had escaped. The eye was rendered as aseptic as possible, the iris replaced, and the rent stitched with the finest "eye" silk and needles. The recovery was slow, but steady, and the patient was discharged after four months with good vision through an artificial pupil (outer side), which was made after the eye had recovered, as the line of union in cornea was slightly cicatricial in centre.

Ovarian Cyst Weighing Sixty Pounds. Operation. Recovery.—The patient—W. M., aged 60 years—was admitted weighing 306 pounds. There was a history of intra-abdominal tumor of ten months' standing. On examination the abdomen showed itself enormously enlarged,—viz., girth at umbilicus, 62½ inches; length from tip of sternum to umbilicus, 19 inches; from umbilicus to pubes, 9 inches. Thus the growth occupied the abdominal cavity, above the umbilicus chiefly. There was a faint sensation of elasticity or obscure fluctuation, but only the history obtained from the surgeon who sent the patient to the hospital enabled the diagnosis of ovarian cyst to be made with any degree of certainty.

An incision was made above the umbilicus and ending one inch below it. Tumor proved to be a colloid cyst of the right ovary, and weighed about 60 pounds. The pedicle was short and broad. The ovarian vessels and the tube, etc., were tied near the uterus and the line of the broad ligament; between these points stitched with fine catgut. A glass drainage-tube was inserted. Primary union in wound occurred. The stitches were removed on the sixth day, and the drainage-tube on the eighth day. The patient got up on the twentieth day, and left the hospital on the thirty-fifth day, weighing 218 pounds. When seen afterward (two months) she was in excellent health. This case is noteworthy from the enormous weight of the tumor and the rapid and good recovery. The patient was very fat, in addition to having to carry a tumor weighing 60 pounds, and consequently for some weeks before the operation the patient could not walk at all.

Old, Depressed Fracture of Skull. Psychical Symptoms. Operation. Recovery.—Joseph Wood, aged 51 years; married; color, brown; seaman; from Grand Cayman. He was admitted into the hospital on April 24, 1895, with a cicatrix over the frontal region, with a sinus leading down to a depressed fracture of the left frontal bone, caused by a blow accidentally received three months before—on January 1st of the same year—during a storm at sea. He stated that he was unconscious for three days after injury and no medical aid was available. At the time of admission he suffered from constant headaches, sleeplessness, and loss of the power of thought. While in the hospital, for a few days before the operation he never voluntarily conversed or appeared to take interest in anything, always "wishing to die on account of his state of misery."

The following are the steps of the operation performed: Large semilunar flap turned back over fracture of frontal bone, left side, above outer half of orbit. It was found that a large, triangular bit of bone had been wedged beneath and overlapped by the surrounding bone. The edge of depressed bit was bitten away with Hoffman's forceps, but depressed bit could not even then be elevated, therefore the centre of the depressed bit was removed with trephine and the remainder removed in two pieces. The dura, which had been so thrust in by the very thick, depressed bit of skull, did not pulsate, but after the removal of the last bit of bone it assumed its normal position and pulsation was apparent. The skull was abnormally thick,—at least one-half inch. In the granulation tissue filling the depression were fragments of the straw-palm-leaf hat that the man had worn at the time of the injury. Recovery was perfect, only interrupted by an attack of influenza. The stages of his ailment were three,—viz.: 1. Primary,—old compressed, depressed fracture of the left frontal bone. 2. Secondary,—cerebral symptoms (psychical). 3. Intercurrent,—influenza. Recovery, mentally and bodily.

Compound Depressed Fracture of the Skull. Convulsions. Operation. Recovery.—The patient, S. B., fell from a height of about twenty feet on the right side of the forehead. On being brought to the hospital there was found to be a depressed fracture of the frontal bone on that region, with lacerated wounds of the scalp over it. While being examined the child

became unconscious, and convulsions of the left side of the face and conjugate deviation to the left occurred. He was at once removed to the operating-theatre for operation.

During the course of the operation convulsions extended from the face to the left arm and then to the left leg; so that the whole left side was in a state of clonic spasm. Just at the end of the operation the convulsions became general, with cyanosis, and, on reflecting a large crescentic flap, an extensive comminuted depressed fracture of right frontal bone was found. Such bits of bone as could be elevated were so treated, which necessitated the use of Hey's saw and Hoffman's forceps to remove the overlying bits of bone; the loose fragments were removed, leaving an area of dura mater about the size of a sixpence, but more triangular in shape, exposed. The lacerated scalp-tissue was rendered as aseptic as possible, and the flaps stitched with catgut.

The child recovered consciousness in two hours after the operation, had a fair night, and was bright and cheerful next day. He has made an excellent recovery, and the hole left in the skull has apparently filled up with new bone.

He is an unusually bright, pleasant little fellow, and it will be interesting to watch his future intellectual and moral development after so severe and extensive a lesion over the "mental" portion of the brain.

When seen in December, 1896,—one year after operation,—he was healthy and bright. No trace of the old injury present, except a cicatrix at the site of the operation. The cavity in the frontal bone is filled in with bone.

Poland.

DR. J. DRZEWIECKI,

Redaktor Korespondent z działu polskiej literatury tyczącej się: Medycyny ogólnej i lecznictwa; pediatryi; akuszerzyi; ginekologii; laryngologii; otologii; hygieny; demografii; medycyny sądowej; histologii; patologii; bakteryjologii; anatomii; fizjologii.

Wszystkie pisma lekarskie, dzieła, rosprawy, monografije, itd., w języku polskim wydane, a tyczące się przedmiotów powyższych, winny być nadsyłane pod adresem

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Ichthyol in Phthisis.—FRÆNKEL has administered ichthyol in doses of 2 to 4 grammes ($\frac{1}{2}$ to 1 drachm) daily to thirty persons affected with pulmonary phthisis, and always observed diminution and even complete disappearance of cough, easy expectoration, diminution of the quantity of sputum, diminution or disappearance of nocturnal sweats, and considerable improvement in the general state and appetite. During three months of observation he convinced himself that râles gradually disappeared in the lungs, although the dullness did not diminish. Secondary unfavorable effects from the drug were not observed; the bad taste may be avoided by taking the drug in capsules. He supposes that ichthyol acts more advantageously than creasote or guaiacol. In cases of phthisis fibrosa he has not seen any good effect from it.—*Przeglad Lekarski*, No. 11, 1897.

The Treatment of Tabes Dorsalis.—STROZEWSKI ardently recommends Frænkel's so-called compensatory method (*compensatorische Nebungsther-*

apie), consisting of the "repeated teaching of movements" lost through ataxia. Frænkel's method consists of a series of systematic exercises, made, at first, under the control of vision, and afterward, in proportion to improvement, with closed eyes. The principal attention must be paid, not to the rapidity, but to the precision of the movements. He criticises all other methods hitherto known for the treatment of tabes, and regards Frænkel's method as the only one that deserves serious attention.—*Gazeta Lekarska*, No. 5, 1897.

Argonin in the Treatment of Gonorrhœa.—ZYDLOWICZ has applied this remedy in thirty-three cases of gonorrhœa, six of which he described minutely. Of these, six were acute, twenty-six subacute, and one chronic. In the six acute cases, gonococci disappeared from the discharge after from three to thirteen days; in all other cases they disappeared after from eight to seventeen days of the treatment; they did not disappear even after three weeks of the treatment in one case only. Injections are not painful and therefore may be applied in all periods of gonorrhœa; under their influence the symptoms of inflammation diminish and the gonococcus disappears. All this enables the author to conclude that argonin is the best of all known antigonorrhœal medicines, and recommends it warmly.—*Przeglad Lekarski*, Nos. 1–3, 1897.

On the Diuretic Action of Lactate of Strontium.—BRONOWSKI conducted experiments and observations upon this agent, and reached the following conclusions: 1. Being introduced into the circulation of animals, it does not raise the general blood-pressure; on the contrary, diminishes it. 2. Introduced into the blood in overdoses, in proportion to the weight of an animal (more than 0.07 per kilo), it irritates the kidneys. 3. Its diuretic action depends most probably upon the dilatation of the vessels of the kidneys. 4. The increased diuresis is not at all provoked by the action upon the epithelium of the kidneys. 5. Clinical observations prove that lactate of strontium has a favorable influence on albuminuria and diuresis. The author therefore recommends its use.—*Medycyna*, No. 1, 1897.

Poisoning by Hydrochloric Acid.—The cases of poisoning by hydrochloric acid are rare, the general literature containing not many more than forty cases. DR. LANDE describes a case of a woman, of 50 years, who, by mistake, drank about 1 tablespoonful of pure muriatic acid. Besides burning and pain in the stomach, vomiting, diarrhœa, and cramps in the lower extremities, there were observed: (*a*) Absolute loss of tendinous reflexes on the first day of poisoning; this symptom, which disappeared on the second day, has not thus far been observed; consciousness was complete. (*b*) Entire absence of injury of mucous membrane of the mouth. (*c*) Albuminuria, the sediments of the urine containing numerous hyaline and granular casts and purulent corpuscles. (*d*) One day's fever (38.8° C.—102° F.) on the sixth day of the disease, without any apparent cause.

The author warns against the incautious administration of hydrochloric acid, especially in children.—*Gazeta Lekarska*, No. 8, 1897.

Russia.

DR. J. DRZEWIECKI,

РЕДАКТОР-КОРРЕСПОНДЕНТ изъ области русской литературы, касающейся: Общей медицины и терапіи, педіатріи, акушерства, гинекологіи, ларингологіи, отологіи, гигіены, демографіи, судебной медицины, гистологіи, бактеріологіи, анатоміи и физіологіи.

Всѣ періодическія, медицинскія изданія, сочиненія, стат'и, монографіи и т д., изданныя на русском языкѣ и касающіяся вышеименованныхъ предметовъ должны быт' адресованы на имя

ДРА ДРЖЕВЕЦКАГО.

87 Краковское Предмѣст'е,

Варшава.

The Influence of Tobacco-smoking upon the Health.—Wishing to explain how far tobacco-smoking is spread among students and how it acts upon the respiratory and digestive organs, DR. MENDELSON, in 1890, sent questions to all students of the Military Medical Academy and Technological Institute. Every smoker was to give five answers (age, how long he smokes, how many cigars or cigarettes daily, if he inhales the smoke, and if he often suffers from affections of respiratory or digestive apparatus) and non-smokers three, and those who gave up smoking nine. He received altogether 5000 answers. Of 1071 students, 556 were of the medical academy and 515 of the institute. There were a little more smokers,—namely, 51.07 per cent. Among the students of the academy were more smokers than among those of the institute,—of the first, 54.66 per cent., and of the latter 47.18 per cent. The majority began to smoke in the sixteenth, seventeenth, or eighteenth year. On the average, the smoking medical student smoked daily 19.64 cigarettes and the technological students 22.88. Estimating ten cigarettes to have cost 1½d., the author figured out that the student of the Military Medical Academy spent yearly on tobacco £1200,—*i.e.*, a sum quite sufficient for the competent support of forty poor students. The smokers in both institutes show a greater percentage of mortality than non-smokers. Out of 100 smokers 16.09 per cent. fell ill from affections of the respiratory organs, and out of 100 non-smokers only 10.69; of digestive organs, out of 100 smokers, 11.88, and out of 100 non-smokers, 9.92; affected with both apparatus, respiratory and digestive, out of 100 smokers, were 8.77 per cent., and out of 100 non-smokers only 3.22; in general, 36.74 per cent. of smokers and 23.83 per cent. of non-smokers were taken ill. One-third of the smokers began to smoke before the sixteenth year and two-thirds after sixteen. The first became ill oftener than the latter; of the first, 45.83 per cent. became ill and of the latter 32.71 per cent. The health of the technologists is better than that of the medical students; this difference is particularly noticeable in the first semestre, where, of the first, 14.66 per cent., and of the latter 31.53 per cent., became ill. The smoking especially increased the sickliness of medical students of higher courses and technologists of the chemical section. The reason that the technologists are, on the whole, healthier, is that they principally come from the country and, besides, are not tired and fatigued by the "classical system of education."

Sixty-one students gave up smoking; of this number, 20 on account of lung affections; of the latter, 6 cases recovered completely, 10 showed improvement, and 4 none whatever.—*Wratch*, No. 14, 1897.

Myofibrosis of the Heart.—GURVITCH has investigated the anatomo-

pathological changes in the heart-muscles with degenerated connective tissue. His investigations seem to show that there is, besides the forms known, another kind of diffused degeneration of connective tissue, which greatly resembles that of the hardening of the vessels (sclerosis). The author sees, in the development of the connective tissue in the place of the muscular, the condition necessary for compensation,—the degree of degeneration in certain parts of the heart always corresponding to its dilatation. According to him, the cause leading to this form of degeneration is weakness of the heart. The latter is conditioned (1) by old age, (2) mechanical causes (ribium cordis), (3) poisoning (by alcohol) and infectious diseases. —*Inaugural Dissertation*, Dorpat, 1896.

The Treatment of Pneumonia Crouposa.—Roubel, relying upon his own observations, communications of Petrescu, the dissertation of his pupil, Antoniu, and upon the works of other authors investigating the subject of the treatment of croupous pneumonia by large doses of digitalis (highly recommended by Petrescu), reaches the conclusion that this method, being, in fact, nothing but a modification of Traube's method, is not only valueless, but that in many cases it is liable to endanger life. He therefore advises that the method be dropped as soon as possible.—*Wratch*, No. 2, 1897.

Clinical Notes and Therapeutic Suggestions.

Consumption and Insanity.—Dr. Thomas J. Mays, of Philadelphia, concludes: (1) that insanity and consumption were comparatively infrequent in the negro race before the war, (2) that both of these diseases have disproportionately increased in the same race since the war, and (3) that in all probability the causes which give rise to one of these diseases also produce the other. And, furthermore, (1) that both of these diseases are most liable to occur at the same age-period,—that is, between twenty and thirty years; (2) that the family which is burdened with one is also liable to produce the other, this liability being greater in the case of insanity than in that of phthisis; (3) that they are both closely related in personal and family history to idiocy, hysteria, epilepsy, asthma, and to other diseases of the brain and spinal cord; (4) that they are both produced by syphilis, alcohol, overwork, business vicissitudes, domestic trouble, mental anxiety, grief, disappointment, and excesses of all sorts,—in fact, by any agent or influence, such as those named, which vitiate the brain or nervous system; (5) that the insane, the idiotic, the epileptic, the hysterical, the asthmatic, and the members of their families are from three to eight times more prone to become phthisical than persons who are not burdened in the same way; and (6) that those who are confronted by a new and higher civilization, and who are compelled to adjust themselves to these new relations, are excessively liable to fall victims to pulmonary consumption.—*Boston Medical and Surgical Journal*, June 3, 1897.

Hæmoptysis in Non-tuberculous Subjects.—Dr. David Newmann, of Glasgow, concludes some interesting remarks on repeated hæmoptyses in non-tuberculous subjects, with illustrative cases, by the statement that in all cases of hæmoptysis the important point to determine is the source of the bleeding. In the cases described by the author not infrequently the blood escaped in such a way as, had the cause been suspected, at once to suggest the nature of the hæmoptysis, but sometimes in the same case the blood trickled down into the larynx or trachea, and was expectorated as if from the lungs. Hence, the mode in which the blood escapes, or even the impressions of the patient, cannot be taken as a guide in determining the source of the bleeding; it therefore becomes all the more important to carefully employ the laryngoscope or the rhinoscope to establish the precise lesion from which the blood flows. It is believed by many that if blood is seen in the trachea we may conclude that the hæmoptysis is from the lungs. This is not altogether correct. The blood, as he showed in some of the cases reported, may flow into and even collect in the trachea from the higher air-passages; but it may be asserted, as a general rule, that during pulmonary hæmoptysis the trachea is blood-stained, and the blood is intimately mixed with the mucus. Whereas, in hæmorrhage from the larynx or the parts above it, the trachea is seldom stained, the blood expectorated is pure, only on the surface of a mass of mucus, inspissated, or in dry clots. In all cases, if the source of the bleeding is in the larynx or upper parts of the air-passages, the laryngoscope should reveal its source, but perhaps not with one examination only; many careful observations may be required.

In the great majority of cases it is easy to distinguish a pulmonary hæmorrhage from other hæmoptysis, but in a few instances the distinction between the two forms of bleeding is a matter of considerable difficulty. In the absence of any lesion in the upper air-passages to account for it, the bleeding may be safely attributed to a pulmonary lesion, even though there may be no appreciable evidence of disease in the lungs, and on this assumption treatment should be adopted until unmistakable symptoms or physical signs render the diagnosis certain.—*British Medical Journal*, May 29, 1897.

Intubation in Diphtheria.—Dr. F. H. Halsted, of Syracuse, N. Y., reports the result of fifty-seven intubations in diphtheria in private practice before and since the use of antitoxin, and concludes: 1. Laryngeal diphtheria, in any epidemic, is never mild, but has always had a mortality of from 90 to 95 per cent.,—reduced by operation, intubation, or tracheotomy to from 72 to 76 per cent. 2. The report of his cases shows a mortality of intubations without serum of 76 per cent.; in conjunction with serum of 25 per cent., and, eliminating cases of death within twenty-four hours of injection, a mortality of 10 per cent. The reduction of mortality from 76 to 10 per cent. is to be credited to antitoxin. 3. Antitoxin should always be administered as early as possible, and in laryngeal cases without waiting for the bacteriologist's report. If this is done it will usually prevent an extension to the larynx, or, if the larynx is already invaded, an early injection will frequently cure without need of operation. 4. No child should be allowed to die of laryngeal stenosis without an operation, preferably

intubation, and serum should be injected at once regardless of the stage of the disease, as most-desperate cases often end in recovery.—*New York Medical Journal*, June 12, 1897.

The Care of the Perineum in Head-Last Deliveries.—In the *Centralblatt für Gynäkologie* for May 15th, Dr. W. Rubeska, a professor in the Prague school for midwives, remarks upon the paucity of directions in the text-books of obstetrics as to the management of the perineum during the birth of the after-coming head. He quotes a description, by Ostermann, of Berlin, of his method, and then gives an account of his own, which, he remarks, must often have been employed, so simple is it, although the first published description of it appeared only so recently as in 1893, in his "Lehrbuch der Geburtshilfe für Hebammen."

As soon as the child's mouth has cleared the vulva, whether extraction or expression has been employed, he seizes its feet with one hand and lifts it high over the mother's abdomen. Then with the other hand he manipulates the head, stretching the fingers out over the perineum and inserting the thumb into the child's mouth in such a manner as to have it rest on the alveolar arch of the upper jaw. The hand thus has perfect control of the head, the thumb holding it back forcibly if it shows a tendency to advance faster than the elasticity of the perineum warrants, while, at the same time, the outstretched fingers press the cranium forward against the pubic arch, and thus relieve the perineum of its tension. If the greatest circumference of the head has been expelled, the hand readily lifts the head out independently of the pains.

Since the child has its mouth and nose free, it can breathe, and, in case of need, the mucus may be swabbed from its mouth and throat with a flexible catheter; consequently there is usually no longer any occasion for haste in extracting the head. At this time there is no need of traction on the head; the abdominal muscles will drive it out, or it may be lifted through the vulva with the hand. The author thinks his method has the advantages over Ostermann's of simplicity and ease of execution, also that of not requiring the co-operation of the nurse or other assistant. He recommends it on the strength of a large experience.—*New York Medical Journal*, January 12, 1897.

The Use of Ergot in Obstetrics.—According to Dr. Thomas More-Madden, of Dublin, the conditions and circumstances under which ergot may be employed in obstetrics are (1) that the presentation may be natural or cranial, except in some instances of breech presentation, in which it may, possibly, be necessary to deal at once with uterine inertia; (2) that there should be no marked disproportion between the fœtus and mother or any other physical impediment in the genital tract to delivery; (3) that the os uteri, if not previously fully dilated, should be so dilatable as to allow of speedy extraction by the forceps when necessary; and (4) that the preparation selected, the dose, and the method in which it is employed should be well calculated to produce the required effect.

Subject to these conditions, ergot may, with utility, be employed

when actually indicated and judiciously administered either before, during, or after the second stage of labor. That is to say, it may be given before the full dilatation of a dilatable os, (1) in some instances of long delay from uterine inertia in which there is imminent danger to mother or child, or (2) risk of subsequent flooding from further protraction of the case. During the second stage it may be employed (3) in labor rendered abnormally tedious by deficiency of uterine action or otherwise complicated, and in which the presentation is natural and no other impediments to delivery exist; or (4) for the prophylaxis of apparently impending flooding. During the third stage ergot may be resorted to (5) for the expulsion of the placenta when retained by inertia, or (6) for the arrest of loss of blood. After delivery this ecbolic may be employed either immediately, (7) to check or prevent hæmorrhage, or subsequently (8) to produce tonic or permanent contraction, and, by sealing up the uterine vessels, thus lessen the liability to bacteriological invasion or sepsis; or else, at the same time, it may be exhibited (9) for the purpose of expelling clots from the womb and so arresting after-pains. Lastly, (10) in the majority of multiparous patients ergot may be administered during the puerperal period with the object of stimulating the muscular tonicity of the uterus, accelerating the process by which its return to a normal condition after parturition is effected, and thus obviating the future possibility of chronic subinvolution.—*Lancet*, May 29, 1897.

The Duration of Infection in Whooping-cough.—Weill, who, in 1894, expressed the opinion that whooping-cough is contagious only during the premonitory catarrhal stage, has since put his opinion to the test. On various occasions he permitted nearly one hundred young children, who had not previously suffered from whooping-cough, to be associated in the same ward, for twenty days or more, with children suffering from the disease during the stage of whooping. In only one case was the disease contracted, and in this instance the patient from whom the infection was derived was in the very earliest period of the whooping stage. In three small epidemics Weill was able to satisfy himself that infection was contracted from children who had not yet begun to whoop. He concludes that infection ceases very soon after the characteristic whoop commences, and that, therefore, in a family it is not the patient who is already whooping, but his brothers and sisters who have not previously had whooping-cough, who ought to be isolated.—*Lyon Méd.*, May 19, 1897.

Adenoid Vegetations and their Bacilli.—Gourc, from examination of 213 cases, concludes that there is no bactericidal property in the secretion of the glands, and probably none in the nasal mucus. Latent lacunar encysted adenoiditis is a rarity. As regards the bacilli, 25 examinations disclosed none; 37 streptococci, but never pure; 60 staphylococci, pure; and 69 associated with other micro-organisms; other forms of cocci, 41 pure and 54 associated; pneumococci, 3; leptothrix buccalis, 1 pure and 1 associated; and a short bacillus not taking Gram's stain in 1 case. There were hypertrophy of the tonsils in 17 cases; tuberculosis, collateral in 30, hereditary in 18, and personal in 17, but Koch's bacillus was never detected

in the vegetations. Metastatic anginæ and laryngitides no doubt depend on the above bacteria, and some cases of facial erysipelas may be explained by the streptococci. Contraction of the nose, acute arching of the palate, and dental deviations due to hereditary causes, rickets, scrofula, or lymphatism may accompany, but are not results, of adenoid growths. Operation should be complete, as remnants left do not atrophy.—*Thèse de Paris*, No. 175, 1896–1897.

A Rœntgen-Ray Examination in a Case of Asthma.—Dr. Lewy-Dorn relates the case of a woman, 28 years old, who had dry bronchitis with consecutive pulmonary emphysema and asthma, in which, on account of the state of the lungs, a satisfactory examination as to the size of the neighboring organs could not be made in the ordinary way. The Rœntgen rays were therefore employed, and during the examination an asthmatic attack occurred, but it did not interfere with the observation. The left half of the diaphragm was observed to fall rapidly and rise slowly at each respiration, while the right half of the muscle was altogether motionless. This spectacle continued for several minutes, during which time the peculiar rough breathing could be heard distinctly. Then the patient began to cough, and the right as well as the left half of the diaphragm made deep inspiratory and expiratory movement; thick mucus was expelled and the attack was over. The case, therefore, was one of unilateral asthma, and this the author connects with the fact that the bronchial trouble was confined to one lung.—*New York Medical Journal*, June 12, 1897.

Acute Œdema of the Larynx.—Stankowski relates two cases due to iodide of potassium: I. A man, aged 28 years, was suffering from pulmonary and laryngeal phthisis. The laryngeal manifestations consisted in infiltration of the interarytenoid and right aryteno-epiglottic folds. He was treated with potassic iodide with the view of improving the nutrition. In five days a considerable œdema of the left aryteno-epiglottic fold was noticed, which disappeared when the iodide was discontinued. The author gives his reasons for believing that this œdema was due to the iodide, and was not a manifestation of tuberculosis. II. This case occurred in a man, aged 31 years, who had been treated with several courses of mercurial inunction. Some six years after the initial lesion he was given potassic iodide as syphilitic manifestations had again appeared, as well as a solution of iodide in potassic iodide to be applied to a swelling on the lip. After he had been taking the iodide for two weeks he began to suffer from coryza and dyspnœa. There was an œdematous swelling on the right side of the larynx. The iodide was omitted, and the swelling in the larynx soon disappeared. In this case there was no infiltration, and the swelling had not the characteristics of a syphilitic perichondritis. The œdema was unilateral in both cases,—a feature not often met with in cases hitherto recorded. In the first case 12 grammes (3 drachms) of iodide were taken in five days; and in the second case iodide had previously been taken without any evidence of iodism. In both cases the œdema did not appear at the commencement of the treatment with small doses of iodide, as has generally

been known to be the case. The laryngeal symptoms were never urgent, as has happened in most of the recorded cases.—*Münch. med. Woch.*, March 23, 1897.

Action of the X-rays on the Heart.—Drs. Gaston Séguy and F. Quénisset have simultaneously observed that if a long exposure is made to the x-rays certain cardiac disturbances are experienced, consisting in unbearable palpitation and very violent and irregular palpitations. Gaston Séguy had noticed it on himself after numerous observations, while F. Quénisset noted it in a person whom he had treated for some time by x-rays in order to experiment with their therapeutic action. The patient first felt great oppression at the region of the heart, then violent and irregular beats, which became unbearable and dangerous when the x-rays passed through the chest. It was found necessary to place a metallic plate thick enough to intercept the rays.—*Bulletin Médical*, April 21, 1897.

Mammary Cancer.—In the Ingleby Lectures on the operative treatment of cancer of the breast, delivered at Mason College, Dr. Bennett May, of Birmingham, gives the following exposition of the best work which has been done in the treatment of cancer of the breast on the lines of the radical operation described.

The following table shows the recently-published returns of three operators :—

Table of Cases Operated on by the Radical Method and Observed for at least Three Years.

Surgeon.	Number of Cases.	No Local Recurrence.		Local Recurrence.	Percentage of Cures.	Date.
		Cured.	Died.			
Rotter, ...	10	6	2	2	60.0	1896
Helferich, ...	35	10	11	14	30.5	1896
Watson Cheyne, . .	21	12	4	5	57.0	1896
Total, ...	66	28	17	21	42.5	

Percentage of cures (average), 42.5. Percentage without local recurrence, 68. Mortality of operation, 0.9.

Bergmann does a bold operation on ordinary lines, removing the breast widely with the paramammary tissues, systematically clearing the axilla, and, in some cases, removes the sternal portion of the pectoralis major. His latest statistics, however, do not come down later than 1885, when he was less careful about clearing the fascia, etc., than now, and they are not included in this table.

Rotter, of Berlin, does a wide operation. He removes the whole of the sternal part of the pectoralis major and the pectoralis minor. He also removes the clavicular part of the major when the infraclavicular glands are enlarged. In some cases he removes the supraclavicular glands, but does not resect the clavicle.

Helferich, of Greifswald, does a similar operation, but without removing the pectoralis minor.

Watson Cheyne does a wide, clean operation on ordinary lines, occasionally removing the sternal portion of the pectoralis major. He does not ordinarily remove the supraclavicular glands. His results, which I take from the Bradshawe Lecture, February, 1896, seem the best recorded, —namely, 21 cases with 12 cures (57 per cent.):—

TABLE OF STATISTICS SHOWING GRADUAL IMPROVEMENT IN RESULTS.

Operator.	Date.	Cures.
Billroth,	1876	4.7 per cent.
Esmarch,	1876	11.8 "
Volkmann,	1880	17.8 "
Kuster,	1885	21.0 "
Konig,	1885	23.0 "
Bergmann (von),	1885	32.0 "
Average of Rotter, Helferich, and Watson Cheyne,	1896	42.5 "

"Looking to my own results, I have seen that the effect of thorough removal is very marked indeed.

"As to the limits of the operation for cure and non-operable cases a judicious and careful selection of cases should be exercised, and involves consideration of the constitutional state of the patient as well as the local conditions. Among non-operable cases I class:—

"1. Large medullary cancers.

"2. Scattered tubercles in the skin and œdema.

"3. Internal metastasis of all kinds.

"4. Œdema and solid enlargement of the upper limb.

"This latter I regard as an emphatic *noli me tangere* and contra-indication. This waxy œdema is one of the most distressing features of the disease. I am sorry to say I know no means of relieving it. I have tried puncture, but it is worthless. Amputation at the shoulder-girdle has been practiced on a few occasions, and I have been asked by patients to do this; but even this heroic remedy does not arrest the progress of the disease.

"Among debatable cases I include:—

"1. Enlargement of the supraclavicular glands. I have hitherto regarded this as an absolute contra indication, but I am inclined now to extend the field of operation to some of these cases, clearing the supraclavicular fossa as an addition to the ordinary operation. I would limit it, however, to small and movable tumors, or to the condition I previously indicated of the highest axillary gland being found infected. Fixed and painful enlargements or with œdema of the limb should not be touched. Before long we may expect some further evidence of the merit of this addition to the operation, as it is being extensively practiced by some surgeons.

"2. Cancer in both breasts. The appearance of the disease in the other

breast is now commonly regarded as a late general infection, and not as an independent growth. It is explained by the free anastomosis and intersection between the lymphatics of the two breasts. It is rarely desirable to operate, but Jacobson records a satisfactory case. The surgeon must consider the probabilities in each case with the interval that has elapsed and the conditions of the reappearance. It happened in two of my patients. In one of them I operated on the second breast with unsatisfactory results; in the other I did not operate on the second breast. The disease reappeared in this one two years after removal of the first, and very curiously it was preceded by enlargement of the axillary glands on the corresponding side.

"*Diagnosis.*—The importance of early operation, obvious as it is, cannot be too strongly enforced. It is unfortunate that the disease is frequently so insidious in its onset that considerable advance has been made before the patient is aware of its existence. Another great hindrance to early operation is the difficulty of diagnosis in the incipient stages. The first care should be to place the patient in favorable circumstances for the examination. The chest should be quite undressed so as to admit of easy examination of the pectoral region and axilla as well as of both breasts.

"In a matter of this urgency and importance I agree with those who think accuracy of diagnosis should be subsidiary to promptitude in treatment, as there are cases in which it is impossible to be accurate without exploratory incision. The two conditions which give the greatest trouble are chronic inflammatory hyperplasia and the case of a tense cyst situated deeply in the breast. The latter is distinguished by its mobility, globular outline, and verified by the exploring needle, which should never be overlooked as an aid to diagnosis. Chronic mastitis is often much more difficult to discriminate, and some experience in handling and exploring these indurations is needed. Students are taught to recognize cancer by the well-known evidences in a developed stage when the malignant characters are patent to observation, and we are all more or less under the influence of these teachings.

"In the simple disease which often follows lactation or weaning the thickening is sensitive to the touch, firm, and elastic, but the outlines are more diffused than in cancer. On pressing the mass against the chest-wall the induration and sense of tumor disappear. Then, again, the area of breast occupied is more diffuse and larger, or both breasts may be similarly affected. The same sort of dimpling of the skin may occur as in cancer, but this is quickly followed by fluctuation and suppuration.

"It is prudent to come to a decision at the first interview; that is to say, if the surgeon is unable to convince himself of the non-malignant nature of the neoplasm it is better to take action at once. I deprecate the practice of keeping cases under prolonged observation to see how they will develop. Patients either get restive and will not consent to remain long in doubt, or, what is more common, if told to report themselves in a month they turn up in six, when the mischief is done. Moreover, the sequel in about five cases out of six shows the delay to have been unwise.

"A very important question arises as to the existence of any direct

etiological relationship between chronic mastitis and cancer. It is generally assumed that a relationship exists, that chronic hyperplasia is likely to become cancer, but the stages of development from this supposed precancerous state have not been traced. There seems distinct clinical proof that cancer may be grafted on to it if prolonged. I believe this did take place in the case of one of my patients. This lady, aged 48 years, had chronic mastitis, and after an interval of three and one-half years from its first incidence a small scirrhous nodule appeared on the site. This made me regret being too precise and nice in my diagnosis.

"There can be no doubt that before proceeding to do one of these wide operations we must first positively satisfy ourselves that the disease is malignant. In a large proportion, too many indeed, this is only too obvious. In doubtful cases a preliminary exploratory incision is to be made, and precaution is to be taken against auto-infection. The knife should be changed and the hands of the operator as well as the surface of the breast washed and the incision plugged with sterile gauze.

"Can we rely upon the naked-eye appearance of the cut surface? I think so. The fresh-cut section of cancer is unmistakable, quite different from the leathery toughness of chronic mammitis. Some contend that the surgeon, if not an experienced pathologist himself, should always be accompanied by one with his freezing microtome. This, however, is a luxury which cannot always be had unless he is to be an official provided at State expense, as suggested in America. One is very glad of the opinion of a skilled pathologist, but in case of a conflict of opinion the responsibility of deciding and acting would remain with the operator.

"In closing let me summarize by saying that so far as is at present known our only hope of advancement lies in the direction of more thorough and more early operation. The limit of what is possible in the former direction will soon be, if it is not already, reached. The result must carry conviction that we may hopefully anticipate a real cure in at least 30 or 40, or, some would say, 50 per cent. of our cases. I would not like to place 30 as a limit, but it is with somewhat chastened hope that I look for anything beyond. Longer observation is required, particularly as to the future development of those cases who pass the three-year limit. Even now, however, the operation in too many cases is not practiced to the best advantage, and is not used for all it is worth. Certainly some of the disrepute and prejudice which have surrounded it may fairly be ascribed to the incomplete and inadequate manner in which it is too often done by men who have had no proper surgical training, and whose ill results serve to injure the cause as a whole, and to reflect prejudicially on the work of others. The fact is it has been every one's operation because it is thought to be easy, but now that surgery is specialized to such an extent these happy-go-lucky methods should be abolished in this as in other branches of surgery."—*British Medical Journal*, May 29, 1897.

Indications for the Removal of the Uterus and the Ovaries when Operating for Septic Pelvic Disease.—Dr. Fernand Henrotin, of Chicago, reaches these conclusions: 1. In operating for pelvic septic disease, either

by the abdomen or the vagina, the condition of the ovaries should be the first object of special consideration, and no part of such an organ, when apparently healthy, should be removed. 2. When the ovaries, an ovary, or a part of an ovary is left, the uterus should never be removed unless it is the seat of otherwise incurable disease. 3. The removal of diseased Fallopian tubes, even in their entirety, is no warrant for the removal of healthy ovaries or a healthy uterus. 4. Even if the tubes and ovaries are entirely removed, the uterus should be spared, if its removal will entail appreciable increase in the danger of the operation to the patient. 5. In very young patients, or such as have what is known as infantile uteri, the uterus need not be removed. 6. In the vast majority of cases, when, in operating for pelvic abscess, it becomes necessary to remove the ovaries, it is most advisable to also remove the uterus, because it serves no further purpose in the economy and because it remains a serious element for future harmfulness. 7. When, in operating by the abdominal method, the cervix is found apparently healthy, it is advisable to make a supravaginal amputation and to leave the cervix, putting in stay-stitches, as recommended by Baldy, to prevent displacement of pelvic fasciæ.

With greater experience to be gained principally by examination of ablated uteri, we may learn to distinguish inoffensive varieties, and, if so, will leave all such undisturbed, for the smallest atom of human flesh which is harmless and does not disfigure should always be sacred to the surgeon. —*Medical and Surgical Reporter*, April 24, 1897.

New Local Anæsthetic.—Hirschberg announces the receipt of a new local anæsthetic, to which he at first gave the name of "amidin." He found its anæsthetic effects on the eyeball to be prompt and entire, no local irritation and no pupillary dilatation following its use. He used it with success in the extraction of a traumatic cataract, the presence of which had already given rise to inflammation.

It is closely allied to phenacetin, and has a powerful local anæsthetic action. Although it is highly poisonous, if administered internally, even in minute doses, no local poisonous effect has been noted. It is soluble in boiling water, and should be dissolved in a porcelain vessel, as it causes glass containing an alkali to lose a portion of the latter, which clouds the solution. It has finally been baptized with the name "holocain." The experiments at Hirschberg's clinic were continued, some forty-five cases having been subjected to its action. Anæsthesia came on in from fifteen seconds to one minute, and lasted ten minutes. The instillation of holocain was accompanied by a slight burning sensation, no greater than that produced by cocaine. The dryness of the corneal epithelium produced by cocaine was here wanting. No pupillary enlargement and no effect on the accommodation were observed.

It was, moreover, found that holocain could be used in cases where cocaine was either contra-indicated or failed to work,—as, for instance, where there existed a considerable inflammation of the conjunctiva bulbi, attended by swelling. Its action was here entirely successful.

The solution of holocain needs no sterilization, being, in the strength of 1 per cent., itself bactericidal.

Holocain possesses strongly poisonous properties, acting thus in one-fifth the strength of cocaine. When instilled in the conjunctiva no injurious effects have been observed.

In this new agent, then, we have a remedy that is likely to supplant cocaine in many cases of ophthalmic surgery. Among its advantages may be reckoned the following: 1. It does not enlarge the pupil. 2. Does not affect the accommodation. 3. Does not increase intra-ocular pressure. 4. Promotes antisepsis. 5. May be used when cocaine is contra-indicated.

Per contra, its poisonous nature prevents it from being used subcutaneously. And, as it does not contract the vessels, operations done under its influence are likely to be attended by more hæmorrhage than those performed under cocaine.—*Boston Medical and Surgical Journal*, June 3, 1897.

Indications for the Use of Iron.—In a clinical lecture delivered before the Medical Society of the Woman's Medical College of Philadelphia, Prof. Frederick P. Henry reviewed the main indications for this remedy in *chlorosis*. This affection, in its incipiency, is characterized by a normal number of corpuscles, each one of which is deficient in hæmoglobin, which is the chief iron-containing constituent of the body. Iron is a specific, and the demand for it is so imperative that it seems immaterial what preparation be employed. There is, however, always room for selection, some patients being unable to tolerate any but the blandest preparations, such as the lactate or the potassiotartrate, while others experience no inconvenience from the use of the sulphate, the saccharated carbonate, or the ferrum reductum.

If the tongue is heavily coated, the breath offensive, and the bowels constipated, the administration of the iron should be prefaced by a purge. In some cases, however, even though there be no sign of digestive disorder, the stomach will not tolerate any but the blandest preparations, such as the lactate or the potassiotartrate, which are the least constipating of the various preparations of iron. When well borne, one of the best preparations of iron is the sulphate. It is generally administered in pill form, with equal parts of potassium carbonate. Such a pill, first recommended by Blaud, and therefore known as Blaud's pill, was held in great esteem by the late Professor Niemeyer, to whose indorsement its general use is largely owing.

In anæmia, dependent upon malarial poisoning, iron may be advantageously combined with quinine or arsenic. The citrate of iron and quinine, or the arseniate of iron (the latter in doses of $\frac{1}{60}$ grain—0.0015 gramme—three or four times daily; the former in doses of 2 to 5 grains —0.15 to 0.35 gramme—thrice daily), may be employed under these circumstances.

In the anæmia, which is so common an attendant of syphilis, an excellent combination is the tincture of the chloride of iron and corrosive sublimate, as in the following prescription:—

℞ Tinct. ferri chloridi, ... ℥ss (15.00 grammes).
Hydrarg. chloridi corrosiva, . . gr. j (0.07 gramme).
Glycerinæ, ... ℥ss (15.00 grammes).
Aquæ, ... ad ℥iij (90.00 grammes).
M. Sig.: One teaspoonful in water, thrice daily, after meals.

In sloughing, phagedenic chancroid, the potassiotartrate of iron has been employed with apparent benefit.

In the *anæmia of heart disease*, which is often quite prominent, so much so that a "cardiac cachexia" is described by some writers on diseases of the heart, iron may be combined with digitalis. The two drugs may be given in pill form, in which case the powdered digitalis would be employed; or the tincture of the chloride of iron and the tincture of digitalis may be mingled in the same prescription. The mixture is certainly not an elegant one, owing to the tannin contained in the digitalis, but there is no doubt as to its therapeutic activity in suitable cases.

Amenorrhœa and Menorrhagia.—Iron is largely used as an emmenagogue, but is only efficacious in such cases of menstrual suppression as are due to an impoverished state of the blood. On the other hand, in certain cases of chlorosis there may be a tendency to excessive menstrual discharge, these cases being designated by the term "chlorotic menorrhagia." For the cure of this form of menorrhagia, iron is the best remedy, and the more astringent preparations, such as the tincture of the chloride or the liquor ferri citratis, should be employed. It is scarcely necessary to say that, before prescribing iron in such cases, the physician should be assured that the anæmia is the cause and not the consequence of the menorrhagia.

Rheumatism.—Iron was at one time much employed in the treatment of rheumatism, but has been entirely superseded by the salicyl compounds. It is, however, an excellent prophylactic against relapse, and for this purpose a non-official preparation, iron salicylate, may be employed for some weeks after the recovery from the attack.

Erysipelas.—The tincture of iron chloride was at one time regarded as a specific in the treatment of erysipelas, and it is still largely employed in this disease. To obtain good results, it must be given freely,—that is, to the extent of at least 1 or 2 drachms (4 or 8 grammes) daily. It has been given in much larger doses and, it is claimed, with benefit. For example, Mr. de Morgan, of the Middlesex Hospital, London, has given so much as two ounces of this drug in twenty-four hours in cases of erysipelas. While benefit seems to have been derived from this method of treating erysipelas, it is a significant fact that it is most marked when the internal use of iron is combined with external applications, and especially such as exclude the air from the affected region.

Neuralgia is often dependent upon anæmia, and when this is the case iron will be found of service. The saccharated carbonate is a favorite preparation in such cases, but the necessity of administering it in huge doses, as is done by some practitioners, is doubtful. This salt has been prescribed in doses of ½ drachm (2 grammes) thrice daily. Since, as the author stated, there exists in health only forty-five grains of iron in the

blood, it is impossible for more than a fraction of these doses to enter the system.

Chorea, when associated with anæmia, may be successfully treated with iron, and in this disease, also, the saccharated carbonate has been given in the same large doses.

It is impossible to enumerate all the diseases for which iron has been administered with more or less benefit. The above-mentioned affections are those in which the remedy is most efficacious. The topical uses of iron are almost as important as the internal. In the form of Monsel's solution (liquor ferri subsulphatis) it is probably the most styptic remedy in the pharmacopœia. It may be successfully employed to check hæmorrhage in cases of cancer of the cervix and in bleeding piles. It has also been injected into the uterus in cases of post-partum hæmorrhage, but this practice can scarcely be recommended, as this salt of iron coagulates the blood in the uterine sinuses, and these coagula, by their decomposition, may give rise to septic infection. The topical effect of iron is not only manifested externally, but it is highly probable that its stimulant effect upon the appetite and digestion is, in part, due to its astringent and tonic action upon the gastric mucosa. This same astringent action renders it of great service in many obstinate forms of diarrhœa, especially in children. I have found the liquor ferri pernitratis successful in checking diarrhœa which had resisted bismuth, opiates, and the vegetable astringents.—*Medical and Surgical Reporter*, April 24, 1897.

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OF THE

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES,

Issue of 1896.

CHARLES E. SAJOUS, M.D., EDITOR-IN-CHIEF,

2043 Walnut St., Philadelphia, Pa., U. S. A.

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(End of Editorial Department of Journal for June, 1897.)

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